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ABSTRACTS

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ABSTRACTS
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The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent.

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Policy Research Working Paper Series

Numbers 2133–2196

Macroeconomics

2133. Resolution of Corporate Distress: Evidence from East Asia's Financial Crisis

Stijn Claessens, Simeon Djankov, and Leora Klapper
(June 1999)

Evidence from East Asia suggests that a firm's ownership relationship with a family or bank provides insurance against the likelihood of bankruptcy during bad times, possibly at the expense of minority shareholders. Bankruptcy is more likely in countries with strong creditor rights and a good judicial system — perhaps because creditors are more likely to force a firm to file for bankruptcy.

The widespread financial crisis in East Asia caused large economic shocks, which varied by degree across the region. That crisis provides a unique opportunity for investigating the factors that determine the use of bankruptcy processes in a number of economies.

Claessens, Djankov, and Klapper study the use of bankruptcy in Hong Kong, Indonesia, Japan, the Republic of Korea, Malaysia, the Philippines, Singapore, Taiwan (China), and Thailand. These economies differ in their institutional frameworks for resolving financial distress, partly because of the different origins of their judicial systems. One difference is the strength of creditor rights, which Claessens, Djankov, and Klapper document. They expect that differences in legal enforcement and judicial efficiency should affect the resolution of financial distress.

Using a sample of 4,569 publicly traded East Asian firms, they observe a total of 106 bankruptcies in 1997 and 1998. They find that:

- The likelihood of filing for bankruptcy is lower for firms with ownership links to banks and families, controlling for firm and country characteristics.
- Filings are more likely in countries with better judicial systems.
- Filings are more likely where there are both strong creditor rights and a good judicial system.

These results alone do not allow Claessens, Djankov, and Klapper to address whether increased use of bankruptcy is an efficient resolution mechanism.

This paper — a product of the Financial Economics Unit, Financial Sector Practice Department — is part of a larger effort in the department to study corporate financing and governance mechanisms in emerging markets. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room MC9-624, telephone 202-473-3722, fax 202-522-2031, Internet address hvo1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at cclaessens@worldbank.org, sdjankov@worldbank.org, or lklapper@worldbank.org. (29 pages)

2134. Interlinkage, Limited Liability, and Strategic Interaction

Kaushik Basu, Clive Bell, and Pinaki Bose
(June 1999)

When will a landlord prefer to supply both land and credit to a tenant rather than allow the lender to borrow from a separate moneylender? The paper shows that if tenancy contracts are obtained prior to contracting with the moneylender, and the tenant has limited liability, interlinked deals will predominate over the alternative situation where the landlord and the moneylender act as noncooperative principals.

Basu, Bell, and Bose analyze the example of a landlord, a moneylender, and a tenant (the landlord having access to finance on the same terms as the moneylender).

It is natural to assume that the landlord has first claim on the tenant's output (as a rule, if they live in the same village, he may have some say in when the crop is harvested). The moneylender is more of an outsider, not well placed to exercise such a claim. A landless, assetless tenant will typically not get a loan unless he has a tenancy. Without interlinkage, the landlord is likely to move first.

In the noncooperative sequential game where the landlord is the first mover and also enjoys seniority of claims if the tenant defaults, interlinkage is superior, even if contracts are nonlinear — a result unchanged with the incorporation of moral hazard.

The main result is that if a "passive" principal — one whose decisions are limited to exercising his property rights to determine his share of returns — is the first mover, allocative efficiency is impaired unless his equilibrium payoffs are uniform across states of nature. The limited liability of the tenant creates the strict superiority of interlinkage by making uniform rents nonoptimal when, with noncollusive principals, the landlord (the passive principal) is the first mover. A change in seniority of claims from the first to the second mover (the moneylender) further strengthens this result. But uniform payoffs for the first mover are not essential for allocative efficiency if he is the only principal with a continuously variable instrument of control. So, the main result is sensitive to changes in the order of play but not to changes in the priority of claims.

This paper — a product of the Office of the Senior Vice President and Chief Economist, Development Economics — is part of a larger effort in the Bank to understand the institutional structure of rural markets and its welfare implications. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michelle Mason, room MC4-338, telephone 202-473-0809, fax 202-522-1158, Internet address mmason1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at kbasu@worldbank.org, clive.bell@urz.uni-heidelberg.de, or psbose@cc.memphis.edu. (35 pages)

2135. Hungary's Integration into European Union Markets: Production and Trade Restructuring

Bartlomiej Kaminski
(June 1999)

Can Hungarian firms cope with competitive pressures and market forces within the European Union market (a criterion for joining)? The empirical evidence suggests that Hungary can withstand such competitive pressures without suppressing the real incomes of Hungary's citizens.

Hungary has achieved impressive results in reorienting both its production and trade. Between 1989 and 1992, as the former CMEA markets collapsed and Hungary liberalized imports and the exchange rate regime, exports to the European Union (EU) expanded, with manufactured exports redirected largely to Western (mostly EU) markets. During this first phase of expansion, characterized by a dramatic reorientation and explosion of trade, the value of Hungary's exports increased 84 percent. In 1993 export expansion lost steam and EU-oriented exports fell 12 percent.

In a second phase of expansion (in 1994–97), driven by restructured and rapidly changing export offers, exports again registered strong performance, their value increasing 132 percent. There was a dramatic shift from an export basket dominated by resource-intensive, low-value-added products to one driven by manufactures, with a rapidly accelerating growth of engineering products. Machinery and transport equipment rose from 12 percent of exports to the EU in 1989 to more than 50 percent in 1997.

The shift from natural resource and unskilled-labor-intensive products to technology- and capital-intensive products in EU-oriented exports suggests the potential for integration higher in the value-added spectrum.

More stringent EU environmental regulations will affect a relatively low, and falling, share of Hungary's exports. The Hungarian share of environmentally "dirty" products imported by the EU has increased, but these products have not been trendsetters among Hungarian exports, their share in exports falling from 26 percent in 1989 to 16 percent in 1996.

The rapid pace of Hungary's turnaround seems to reflect the emergence of second-generation firms, mostly foreign-owned. Foreign-owned firms tend to be more export-oriented. Hungary has been one of the more successful transition economies because its economy was receptive to foreign direct investment from the outset. Between 1990 and 1997, Hungary absorbed roughly half of all foreign capital invested in Central Europe.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to study regional integration. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada @worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at bkaminski @worldbank.org. (28 pages)

2136. An Empirical Analysis of Competition, Privatization, and Regulation in Telecommunications Markets in Africa and Latin America

Scott J. Wallsten
(June 1999)

Empirical analysis of telecommunications reforms in 30 African and Latin American countries yields results largely consistent with conventional wisdom. Competition seems to be the most successful change agent, so granting even temporary monopolies may delay the arrival of better services to consumers. Reformers are correct to emphasize that regulatory reform accompany privatization, as privatization without regulation reform may be costly to consumers.

Wallsten explores the effects of privatization, competition, and regulation on telecommunications performance in 30 African and Latin American countries from 1984 through 1997.

Competition is associated with tangible benefits in terms of mainline penetration, number of pay phones, connection capacity, and reduced prices. Fixed-effects regressions reveal that competition — measured by mobile operators not owned by the incumbent telecommunications provider — is correlated with increases in the per capita number of mainlines, pay phones, and connection capacity, and with decreases in the price of local calls.

Privatizing an incumbent is negatively correlated with mainline penetration and connection capacity.

Privatization combined with regulation by an independent regulator, however, is positively correlated with connection capacity and substantially mitigates privatization's negative correlation with mainline penetration.

Reformers are right to emphasize a combination of privatization, competition, and regulation. But researchers must explore the permutations of regulation: What type of regulation do countries adopt (price caps versus cost-of-service, for example)? How does the regulatory agency work? What is its annual budget? How many employees does it have? Where do the regulators come from? What sort of training and experience do they have? What enforcement powers does the regulatory agency have? In addition, researchers must deal with endogeneity of privatization, competition, and regulation to deal with issues of causality.

This paper — a product of Regulation and Competition Policy, Development Research Group— is part of a larger research effort to analyze the role of competition in telecommunications with special emphasis on Africa. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-422, telephone 202-473-8526, fax 202-522-1155, Internet address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at wallsten@stanford.edu. (22 pages)

2137. Globalization and National Development at the End of the 20th Century: Tensions and Challenges

Andrés Solimano
(June 1999)

Do globalization and national development reinforce each other? Are they mutually compatible? What opportunities for national development does globalization open? What problems does it pose? What is the proper balance between national, regional, and global responses to the challenges posed by globalization?

Globalization offers developing countries the opportunities to create wealth through export-led growth, to expand international trade in goods and services, and to gain access to new ideas, technologies, and institutional designs.

But globalization also entails problems and tensions that must be appropriately managed.

For one thing, global business cycles can contribute greatly to macroeconomic volatility at the national level. The scope and severity of crises in Mexico (1994–95), Asia (1997), Russia (1998), and Brazil (1999) suggests the severity of the financial vulnerability developing countries face nowadays.

With financial markets so highly integrated, problems are transmitted rapidly from one country to another. The rapid transmission of financial shocks changes levels of confidence and affects exchange rates, interest rates, asset prices, and, ultimately, output and employment — with consequent social effects.

Policymakers should also be concerned about how globalization exacerbates job instability and income disparities both within and across countries. Macroeconomic and financial crises, by increasing poverty and social tensions, can be political destabilizing.

As the 20th century ends, the resources of Bretton Woods institutions are strained because of the large and complex rescue packages needed to deal with large-scale volatility. Development policy agendas in the era of globalization need to articulate traditional concerns with growth, stability, and social equity with new themes such as transparency and good governance at several levels: national, regional, and global.

This paper — a product of the Country Management Unit, Colombia, Ecuador, and Venezuela — is part of a larger effort in the region to understand the links between globalization and national development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Diana Cortijo, room I4-050, telephone 202-458-4005, fax 202-676-0720, Internet address dcortijo@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at asolimano@worldbank.org. (14 pages)

2138. Multilateral Disciplines for Investment-Related Policies

Bernard Hoekman and Kamal Saggi
(June 1999)

Is there a strong case for developing countries to support the creation of a multilateral agreement on investment? Probably not. Existing agreements offer ample scope for liberalizing foreign direct investment in the area that matters most to developing countries: services.

Hoekman and Saggi evaluate the potential benefits of international disciplines on policies toward foreign direct investment for developing countries. They conclude that the case for initiating negotiations on investment policies is weak, at present.

Negotiating efforts that center on further liberalizing market access on a nondiscriminatory basis — especially for services — are likely to be more fruitful in terms of economic welfare and growth.

Existing multilateral instruments, although imperfect, are far from fully exploited and provide significant opportunities for governments opening further access to markets.

Hoekman and Saggi conclude that priority should be given to expanding coverage of the General Agreement on Trade in Services (GATS) before seeking to negotiate general disciplines on investment policies.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to prepare for the next round of WTO negotiations. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at bhoekman@worldbank.org or ksaggi@mail.smu.edu. (29 pages)

2139. Small States, Small Problems?

William Easterly and Aart Kraay
(June 1999)

Small states, no different from large states in income and growth, should receive the same policy advice large states do. Because of their greater openness, they may be more vulnerable to volatility in terms-of-trade shocks — but their openness pays off in growth.

Small states have attracted a good deal of research. Easterly and Kraay test whether microstates are any different from other states in income, growth, and volatility.

They find that, controlling for location, smaller states are actually richer than other states in per capita GDP. This income advantage largely reflects a productivity advantage — evidence against the idea that microstates are unable to exploit increasing returns to scale.

Small states do not have different per capita growth rates, with or without controls.

Their annual growth rates are more volatile, partly because of their greater volatility in responses to terms-of-trade shocks — to which they are exposed because of their greater openness. But on balance their greater openness pays off positively in growth.

Easterly and Kraay do recommend that small states diversify their risk by opening up more to international capital markets, although the benefits of doing so are still unresolved in the literature.

In general, they conclude, small states are no different from large states and should receive the same policy advice large states do.

This paper — a product of Macroeconomics and Growth, Development Research Group — is part of a larger effort in the group to study the needs of small states. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, Internet address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at weasterly@worldbank.org or akraay@worldbank.org. (36 pages)

2140. Gender Bias in China, the Republic of Korea, and India 1920–90: Effects of War, Famine, and Fertility Decline

Monica Das Gupta and Li Shuzhuo
(June 1999)

The proportions of girls "missing" rose sharply in these countries during times of war, famine, and fertility decline. Resulting shortages of wives improved the treatment of adult women without reducing discrimination against daughters or increasing women's autonomy. The latter goals can be reached only with fundamental changes in women's family position — changes that are taking place only slowly.

Kinship systems in China, the Republic of Korea, and North India have similar features that generate discrimination against girls, and these countries have some of the highest proportions of girls "missing" in the world.

Das Gupta and Li document how the excess mortality of girls was increased by war, famine, and fertility decline — all of which constrained household resources — between 1920 and 1990.

Of the three countries, China experienced the most crises during this period (with civil war, invasion, and famine). The resulting excess mortality of girls in China offset the demographic forces making for a surplus of wives as overall mortality rates declined. India had the quietest history during this period, and consequently followed the expected pattern of a growing surplus of available wives.

These changes in sex ratios had substantial social ramifications. The authors hypothesize that these demographic factors:

- Encouraged the continuation of brideprice in China, while in India there was a shift to dowry.
- Influenced the extent and manifestations of violence against women.

An oversupply of women is the worst scenario for women, as there are fewer constraints to domestic violence. A shortage of women leads to better treatment of wives, as people become more careful not to lose a wife. However in situations of shortage, a small proportion of women may be subject to new types of violence such as being kidnapped for marriage. Ironically, then, higher levels of discrimination against girls can help reduce violence against women.

When women are in short supply, their *treatment* improves. But their *autonomy* can increase only with fundamental changes in their family position, changes that are taking place only slowly.

This paper — a product of Poverty and Human Resources, Development Research Group — is part of a larger effort in the group to study social institutions and development outcomes. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Monica Das Gupta, room MC3-579, telephone 202-473-1983, fax 202-522-1153, Internet address mdasgupta@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. (34 pages)

2141. Capital Flows, Macroeconomic Management, and the Financial System: Turkey, 1989–97

Oya Celasun, Cevdet Denizer, and Dong He
(July 1999)

Between 1989–97, large private capital flows to Turkey contributed to economic growth. Yet chronic and high fiscal deficits — coupled with an inconsistent financial sector regulatory framework — left the banking system and the economy vulnerable to capital flow reversals and external shocks.

Recent developments in a number of emerging economies have heightened interest in the relationship between macroeconomic management and financial regulation, in an environment of open capital accounts and large-scale movements of private capital.

Celasun, Denizer, and He analyze the Turkish experience with capital flows in a macroeconomy characterized by chronically high inflation and fiscal deficits. They study the relationship between capital flows, macroeconomic management, and vulnerability in the financial system.

Their analysis highlights the importance of fiscal policy in an era of large capital flows. Fiscal imbalances contributed both to real exchange rate appreciation and high real interest rates in Turkey. The high interest rates the government must pay on domestic debt have become one of the key issues of Turkey's macroeconomic management. Only by reducing its interest expenses can fiscal deficits be reduced and greater stability be achieved.

The Turkish banking system, in becoming increasingly integrated with international financial markets, has become vulnerable to shifts in market confidence. Banks borrowed abroad in response to macroeconomic imbalances to benefit from high interest rates on domestic loans and government paper. In the process, the banks have exposed themselves to interest rate risk, to foreign-exchange risk, and to large credit risks.

To reduce the Turkish economy's vulnerability to external shocks, financial regulation must be strengthened simultaneously with the achievement of m

This paper — a product of the Poverty Reduction and Economic Management Sector Unit, Europe and Central Asia Region — is part of a larger effort in the region to examine the relationship between capital flows and economic management. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Liana Nathaniel, room F3P-198, telephone 202-458-9569, fax 202-974-4396, Internet address lnathaniel@ifc.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at celasun@econ.umd.edu, cdenizer@ifc.org, or dhe@imf.org. (58 pages)

2142. Adjusting to Trade Policy Reform

Steven J. Matusz and David Tarr
(July 1999)

A survey of more than 50 empirical papers shows that the adjustment costs of trade liberalization are small relative to the benefits. Moreover, manufacturing employment typically increases with trade liberalization. The limited data suggest that trade liberalization reduces poverty.

Virtually all of the studies that quantify the adjustment costs of trade liberalization relative to the benefits point to the conclusion that adjustment costs are small in relation to the benefits of trade liberalization.

The explanation for low adjustment costs is that:

- These costs are typically short term and end when workers find a job, but the benefits grow as the economy does.
- Unemployment doesn't last long, especially where workers' pay was not substantial in the original job.
- Normal labor turnover often exceeds job displacement from trade liberalization.

Moreover, studies that examine the impact of trade liberalization on employment in developing countries find there is little decline — and usually an increase — in manufacturing employment in developing countries a year after trade liberalization, for three reasons:

- Developing countries tend to have comparative advantage in labor-intensive industries, and trade liberalization tends to favor labor.

• Interindustry shifts occur after trade liberalization, which minimizes the dislocation of factors of production.

• In many industries normal labor turnover exceeds dislocation from trade liberalization, so downsizing, when necessary, can be accomplished without much forced unemployment.

Matusz and Tarr recommend a uniform tariff to minimize special-interest lobbying for protection since it diffuses the benefits of protection.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to examine how trade liberalization affects growth and poverty reduction. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada @worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. David Tarr may be contacted at dtarr @worldbank.org. (58 pages)

2143. Bank-Based and Market-Based Financial Systems: Cross-Country Comparisons

Asli Demirgüç-Kunt and Ross Levine
(July 1999)

Financial systems tend to be more market-based in higher income countries, where stock markets also become more active and efficient than banks. Financial systems also tend to be more market-based, even after controlling for income, in countries with a common law tradition, strong protection of shareholder rights, good accounting standards, low levels of corruption, and no explicit deposit insurance.

What are the relative advantages and disadvantages of bank-based financial systems (as in Germany and Japan) and market-based financial systems (as in England and the United States). Does financial structure matter?

In bank-based systems banks play a leading role in mobilizing savings, allocating capital, overseeing the investment decisions of corporate managers, and providing risk management vehicles.

In market-based systems securities markets share center stage with banks in getting society's savings to firms, exerting corporate control, and easing risk management.

The unresolved debate about whether markets or bank-based intermediaries are more effective at providing financial services hampers the formation of sound policy advice.

Demirgüç-Kunt and Levine use newly collected data on a cross-section of roughly 150 countries to illustrate how financial systems differ around the world. They (1) analyze how the size, activity, and efficiency of financial systems differ across different per capita income groups, (2) define different indicators of financial structure and identify different patterns as countries become richer, and (3) investigate legal, regulatory, and policy determinants of financial structure after controlling for per capita GDP.

A clear pattern emerges:

• Banks, other financial intermediaries, and stock markets all grow and become more active and efficient as countries become richer. As income grows, the financial sector develops.

• In higher income countries, stock markets become more active and efficient than banks. Thus, financial systems tend to be more market based.

• Countries with a common law tradition, strong protection for shareholder rights, good accounting standards, low levels of corruption, and no explicit deposit insurance tend to be more market-based, even after controlling for income.

• Countries with a French civil law tradition, poor accounting standards, heavily restricted banking systems, and high inflation generally tend to have underdeveloped financial systems, even after controlling for income.

This paper — a product of Finance, Development Research Group — is part of a larger effort in the group to study the impact of financial structure on economic development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, Internet address klabrie @worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at ademirguckunt @worldbank.org or rlevine@csom.umn.edu. (68 pages)

2144. Aid Dependence Reconsidered

Jean-Paul Azam, Shantayanan Devarajan, and Stephen A. O'Connell
(July 1999)

When foreign aid undermines institutions, countries can become aid-dependent — even if donors and recipients have the best intentions.

When foreign aid undermines institutional development, aid recipients can exhibit the symptoms of aid "dependence" — benefiting from aid in the short term but damaged by it in the long term.

Azam, Devarajan, and O'Connell find that one equilibrium outcome can be high aid and weak institutions, even when donors and recipients fully anticipate aid's effects on institutional development, but don't take the drastic steps needed to put the country on the path to independence.

Another equilibrium outcome can be low aid and strong institutions.

Their model encompasses such diverse experiences as those of Tanzania and the Republic of Korea.

When the development community ignores aid's effect on institutions, the outcome depends greatly on initial conditions. Where institutions are initially weak (as in many Sub-Saharan African countries at independence), institutional capacity collapses and foreign aid eventually finances the whole public budget. Where they are initially stronger, the result can be close to the institutions-sensitive equilibrium.

The results suggest that, even for countries with similar per capita incomes, the foreign aid strategy should be designed to suit the country's institutional capacity. In some cases a short-term reduction in aid may increase a country's chances of graduating from aid.

This paper — a product of Public Economics, Development Research Group — is part of a larger effort in the group to study the effects of foreign aid on the public sector. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7698, fax 202-522-1154, Internet address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at jean-paul.azam@univ-tlse1.fr, sdevarajan @worldbank.org, or soconne1 @swarthmore. edu. (14 pages)

2145. Assessing the Impact of Micro-credit on Poverty and Vulnerability in Bangladesh

Hassan Zaman
(July 1999)

While micro-credit interventions can play an important role in reducing vulnerability through a number of channels, a significant impact on poverty reduction is achieved under more restrictive conditions. These conditions revolve around whether the borrower has crossed a cumulative loan threshold and on how poor the household is to start with.

Zaman examines the extent to which micro-credit reduces poverty and vulnerability through a case study of BRAC, one of the largest providers of micro-credit to the poor in Bangladesh. Household consumption data collected from 1,072 households is used to show that the largest effect on poverty arises when a moderate-poor BRAC loanee borrows more that 10,000 taka (US$200) in cumulative loans. Different control groups and estimation techniques are used to illustrate this point.

Zaman discusses several ways by which membership in micro-credit programs reduces vulnerability — by smoothing consumption, building assets, providing emergency assistance during natural disasters, and contributing to female empowerment. The reduction in female vulnerability in a patriarchal society is illustrated using 16 female empowerment indicators developed from data on 1,568 women. The results suggest that micro-credit's greatest impact is on the set of indicators relating to female control over assets and knowledge of social issues.

The author also argues that micro-credit's impact on poverty and vulnerability can be strengthened if credit is provided jointly with other financial (savings and insurance) and nonfinancial (legal education, food relief) interventions.

This paper is a product of the Office of the Senior Vice President and Chief Economist, Development Economics. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Bezawork Mekuria, room MC4-328, telephone 202-458-2756, fax 202-522-1158, Internet address bmekuria@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at hzaman@worldbank.org. (49 pages)

2146. A New Database on Financial Development and Structure

Thorsten Beck, Asll Demirgüç-Kunt, and Ross Levine
(July 1999)

This new database of indicators of financial development and structure across countries and over time unites a range of indicators that measure the size, activity, and efficiency of financial intermediaries and markets.

Beck, Demirgüç-Kunt, and Levine introduce a new database of indicators of financial development and structure across countries and over time.

This database is unique in that it unites a variety of indicators that measure the size, activity, and efficiency of financial intermediaries and markets.

It improves on previous efforts by presenting data on the public share of commercial banks, by introducing indicators of the size and activity of nonbank financial institutions, and by presenting measures of the size of bond and primary equity markets.

The compiled data permit the construction of financial structure indicators to measure whether, for example, a country's banks are larger, more active, and more efficient than its stock markets. These indicators can then be used to investigate the empirical link between the legal, regulatory, and policy environment and indicators of financial structure. They can also be used to analyze the implications of financial structure for economic growth.

Beck, Demirgüç-Kunt, and Levine describe the sources and construction of, and the intuition behind, different indicators and present descriptive statistics.

This paper — a product of Finance, Development Research Group — is part of a broader effort in the group to understand the determinants of financial structure and its importance to economic development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, Internet address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at tbeck@worldbank.org, ademirguckunt@worldbank.org, or rlevine @csom.umn.edu. (63 pages).

2147. Developing Country Goals and Strategies for the Millennium Round

Constantine Michalopoulos
(July 1999)

Strategies developing countries should adopt in the next series of multilateral negotiations under the World Trade Organization (WTO).

Many developing countries have been reluctant to participate in multilateral trade negotiations except for those on agriculture and services, topics mandated under previous World Trade Organization (WTO) decisions. Michalopoulos argues that developing countries can gain significant benefits from a broader WTO Millennium Round of negotiations but must develop strategies for participating in it.

Different groups of countries will have different interests, but developing countries as a group may want to include additional issues in the new Round, especially industrial tariffs and trade-related aspects of intellectual property rights.

It may also be to their advantage to include discussions on trade-related environmental issues and government procurement, if they obtain the institutional support they need to meet their commitments under any new agreements.

Other topics should be resisted because they are premature or counterproductive or do not promise net benefits for most developing countries.

The new Round should be a single undertaking, to maximize tradeoffs across issues and for political economy reasons: to permit liberalizing forces everywhere to exert pressure on governments to liberalize world trade. But there should not be too many issues, as that would strain the capacities of the poorer and least developed economies.

In a new WTO Round, developing countries should be prepared to exchange liberalizing trade concessions on a most-favored-nation basis. Liberalization of their own trade in exchange for improved access to the markets of their trading partners, most of which are other developing countries, is the only way to maximize benefits from multilateral trade negotiations. Efforts to obtain special and differential treatment should focus on establishing realistic transition periods and technical assistance to address constraints on their institutional capacity.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to identify opportunities for developing countries in the WTO 2000 negotiations. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at cmichalopoulos@worldbank.org. (41 pages)

2148. Social Capital, Household Welfare, and Poverty in Indonesia

Christiaan Grootaert
(July 1999)

It pays for poor households to participate actively in local associations. At low incomes, the returns to social capital are higher than returns to human capital. At higher incomes, the reverse is true.

Grootaert empirically estimates how social capital affects household welfare and poverty in Indonesia. His focus: household memberships in local associations, an aspect of social capital especially relevant to daily household decisions that affect welfare and consumption.

The data suggest that households with higher social capital spend more per capita. They also have more assets, more savings, and better access to credit.

To estimate how social capital contributes to household welfare, Grootaert uses a reduced-form model of household welfare, which controls for relevant household and location characteristics. He measures social capital along six dimensions: density of memberships, internal heterogeneity of associations (by age, gender, education, religion, and so on), meeting attendance, active participation in decision-making, payment of dues, and community orientation.

The strongest effects come from:

• Number of memberships. Each additional membership (an average 20 percent increase) raises per capita household spending 1.5 percent.

• Internal heterogeneity. An increase of 20 percent in the heterogeneity index correlates with 3.3 percent more spending.

• Active participation in decision-making. An increase of 20 percent in the participation index correlates with 3.2 percent more spending.

Grootaert also estimates structural equations and uses instrumental variable estimation and historical data to address the possible endogeneity of the social capital variable and to demonstrate that the causality runs from social capital to household welfare.

This paper — a product of the Social Development Department — is part of a larger effort in the department to assess empirically the role of local institutions in the delivery of services and poverty alleviation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gracie Ochieng, room MC5-410, telephone 202-473-1123, fax 202-522-3247, Internet address gochieng@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at cgrootaert@worldbank.org. (79 pages)

2149. Income Gains to the Poor from Workfare: Estimates for Argentina's Trabajar Program

Jyotsna Jalan and Martin Ravallion
(July 1999)

A workfare program was introduced in response to high unemployment in Argentina. An ex-post evaluation using matching methods indicates that the program generated sizable net income gains to generally poor participants.

Jalan and Ravallion use propensity-score matching methods to estimate the net income gains to families of workers participating in an Argentinian workfare program. The methods they propose are feasible for evaluating safety net interventions in settings in which many other methods are not feasible. The average gain is about half the gross wage.

Even allowing for forgone income, the distribution of gains is decidedly pro-poor. More than half the beneficiaries are in the poorest decile nationally and 80 percent of them are in the poorest quintile — reflecting the self-targeting feature of the program design.

Average gains for men and women are similar, but gains are higher for younger workers.

Women's greater participation would not enhance average income gains, and the distribution of gains would worsen.

Greater participation by the young would raise average gains but would also worsen the distribution.

This paper — a product of Poverty and Human Resources, Development Research Group — is part of a larger effort in the group to improve methods for evaluating the poverty impact of Bank-supported programs. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, telephone 202-473-3902, fax 202-522-1153, Internet address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at jjalan@isid.ac.in or mravallion@worldbank.org. (32 pages)

2150. Who Wants to Redistribute? Russia's Tunnel Effect in the 1990s

Martin Ravallion and Michael Lokshin
(July 1999)

Attitudes toward redistribution of wealth in Russia tend to reflect expectations of future mobility, in both directions. Few Russians expected rising living standards in the 1990s, and most expected a decline in living standards, so there was strong demand for redistribution, even among those currently well off but fearful of the future.

It seems natural to expect the rich to oppose policies to redistribute income from the rich to the poor, and the poor to favor such policies. But this may be too simple a model, say Ravallion and Lokshin. Expectations of future welfare may come into play. Well-off people on a downward trajectory may well favor such policies and poor people on a rising trajectory may not.

This resistance of upwardly mobile poor people to lasting redistribution is analogous to Hirshman's "tunnel effect," as applied to traffic stuck on a congested two-lane road in a tunnel: People's spirits lift when traffic starts moving again; but when another lane starts moving and theirs doesn't, they might grow furious and want to correct things by crossing the double line separating the two lanes.

Using Russia in the 1990s as the setting, Ravallion and Lokshin analyze why some people favor governmental redistribution and others do not and whether there is a "tunnel effect." They find that:

- Some 72 percent of the 7,000 adults surveyed in October 1996 favor government action to reduce incomes of the rich. But the other 28 percent were not only the currently "rich."
- About 85 percent of those in the poorest consumption decile favor redistribution. But among those who expect their welfare to decline, support for redistribution is high, even among the currently "rich." There is little support for redistribution among the well-off who expect to become even better off. Resistance is greatest among those on a rising consumption path who expect it to continue.
- Women tend to favor redistribution more than men.
- Those who favor redistribution include people who voted communist and people who are vulnerable: the old, women, poorly educated adults, people who live in rural areas, people who expect to lose their jobs, and people who do not think the government cares about them.

This paper — a product Poverty and Human Resources, Development Research Group — is part of a larger effort in the group to understand the political economy of redistributive policies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, telephone 202-473-3902, fax 202-522-1153, Internet address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. Martin Ravallion may be contacted at mravallion@worldbank.org. (26 pages)

2151. A Few Things Transport Regulators Should Know About Risk and the Cost of Capital

Ian Alexander, Antonio Estache, and Adele Oliveri
(July 1999)

A methodology for measuring the cost of capital, calculating the measure of market risk, and estimating the impact of various regulatory regimes on market risk in the transport sector.

In reviewing contracts, establishing price limits, or arbitrating conflicts, regulatory agencies and policy advisors face significant information asymmetry in determining the appropriate allowed rate of return, or discount rate. The information gap is especially important in determining the degree of market risk — often a critical component of the cost of capital demanded by operators.

Alexander, Estache, and Oliveri consider various methodological problems in the transport sector in establishing the link between regulatory regime and degree of market risk.

The results of quantitative studies confirm that even for the transport sector — where there is intermodal competition and where contracts are often shorter and regulatory decisions may be less pressing than for utilities — the choice of regulatory regime greatly affects the degree of market risk a company faces. This has important implications for regulatory agencies and actions.

When a regulatory agency undertakes a price review, or when issues arise about concession contracts, it is important that regulators assess correctly the required rate of return and cost of capital. They must also assess correctly the level of risk, which affects the required rate of return and the cost of capital.

Most regulators in developing countries have a problem: the regulated companies are unquoted or undertake many activities for a range of industries and even sectors. For them this methodology for measuring the cost of capital, calculating the measure of market risk, and estimating the impact of various regulatory regimes on market risk may be useful.

This paper — a product of Governance, Regulation, and Finance, World Bank Institute, — is part of a larger effort in the institute to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room G2-148, telephone 202-473-6370, fax 202-334-8350, Internet address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. Antonio Estache may be contacted at aestache@worldbank.org. (17 pages)

2152. Comparing the Performance of Public and Private Water Companies in the Asia and Pacific Region: What a Stochastic Costs Frontier Shows

Antonio Estache and Martin A. Rossi
(July 1999)

Efficiency indicators can be useful to regulators assessing the efficiency of an operation and the wedge between tariff and minimum costs. They allow regulators to control for factors over which the operators have no control (such as diversity of water sources, or water quality or user characteristics).

Estache and Rossi estimate a stochastic costs frontier for a sample of Asian and Pacific water companies, comparing the performance of public and privatized companies based on detailed firm-specific information published by the Asian Development Bank in 1997.

They find private operators of water companies to be more efficient than public operators. Costs in concessioned companies tend to be significantly lower than those in public companies.

Estache and Rossi compare the ranking of these companies by efficiency performance (obtained from econometric estimates) with rankings by more standard qualitative and productivity indicators typically used to assess performance.

They show that rankings based on standard indicators are not always very consistent.

Productivity indicators recognize simple input-output relations, such as the number of workers per client or connection. *Frontiers* recognize the more complex nature of interactions between inputs and outputs. *Cost frontiers* show the costs as a function of the level of output (or outputs) and the prices of inputs, and are generally more useful to regulators assessing the wedge between tariff and minimum costs. *Production frontiers* reveal technical relations between firms' inputs and outputs and provide a useful backup when cost frontiers are difficult to assess for lack of data.

This paper — a product of Governance, Regulation and Finance, World Bank Institute — is part of a larger effort in the institute to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room G2-148, telephone 202-473-6370, fax 202-334-8350, Internet address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. Antonio Estache may be contacted at aestache@worldbank.org. (26 pages)

2153. The Mystery of the Vanishing Benefits: Ms. Speedy Analyst's Introduction to Evaluation

Martin Ravallion
(July 1999)

This entertaining introduction to the concepts and methods of impact evaluation — as seen through the eyes of Ms. Speedy Analyst — assumes readers are familiar with basic statistics up to regression analysis (as covered in an introductory text on econometrics).

The setting for this good-natured training guide for impact evaluation is the fictional developing country Labas. Twelve months ago the government introduced an antipoverty program in Northwest Labas with support from the World Bank. The program aims to provide cash transfers to poor families with school-age children. To be eligible to receive the transfer, households must have observable characteristics that suggest they are poor. To continue receiving the transfer, they must keep their children in school until 18 years of age. The program is called PROSCOL.

The government wants to assess PROSCOL's impact on poverty, to help decide whether the program should be expanded or dropped. The Finance Minister asks the undersecretary, and the undersecretary calls in Ms. Speedy Analyst.

Ms. Speedy Analyst's on-the-job training in how to assess the impact of a social program provides the vehicle through which this paper explains:

- Methods of evaluating a program's impact — randomizing, matching, reflexive comparisons, double difference (or "difference in difference") methods, and instrumental variables methods.
- The types of data used for impact evaluation, typical problems with and uses of data, control variables, instrumental variables, regressions, and so on.
- How to form and match comparison groups.
- Sources of bias.
- The value of baseline surveys.
- Measures of poverty (headcount index, poverty gap index, and squared poverty gap).
- How to compare poverty with and without the program.

This paper — a product of Poverty and Human Resources, Development Research Group — is part of a larger effort in the group to provide useful training tools for Bank staff. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC4-773, telephone 202-473-3902, fax 202-522-1153, Internet address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at mravallion@worldbank.org. (40 pages)

2154. Inter-Industry Labor Mobility in Taiwan, China

Howard Pack and Christina Paxson
(August 1999)

The proximity of industries is strongly related to inter-industry labor mobility, and there is some evidence that workers who move to closely similar industries receive higher wages. Knowledge is transmitted more easily when industries operate, and workers work, in close physical proximity.

Do flexible labor markets lubricate growth? Using data from Taiwan, China, to analyze the effects of labor market flexibility, Pack and Paxson find that:

- Workers are more likely to move to industries that tend to be similar to their industry of origin (including intrasectoral moves that would be considered intersectoral if there were more sectoral disaggregation). The degree of similarity between two industries is measured in several ways, all of them based on the input-output flows across industries. Workers are more likely to move from industry i to industry j if i supplies a large share of j's inputs, receives a large share of its inputs from j, or uses many of the same inputs.
- Moves to more similar industries produce larger wage gains. This is especially true when the industries' similarity is based on their using many of the same inputs. This may be partly because the close proximity of industries, occupations, and individuals provides an environment in which ideas flow quickly from person to person.
- Gains are more likely to accrue to industries as a result of labor mobility.

This paper — a product of Public Economics, Development Research Group — is part of a larger effort in the group to analyze the potential need for public support of industrial development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7698, fax 202-522-1154, Internet address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. Howard Pack may be contacted at hpack@worldbank.org. (24 pages)

2155. Lending Booms, Reserves, and the Sustainability of Short-Term Debt: Inferences from the Pricing of Syndicated Bank Loans

Barry Eichengreen and Ashoka Mody
(August 1999)

International banks provide more credit to smaller borrowers (about whom information is least complete) than bond markets do. High external short-term debt can coexist with rapid growth for extended periods. But overdependence on such debt is risky, because it is likely to unravel if perceptions of sustainability shift.

Academics pay little attention to international bank lending, focusing instead on rapidly growing market segments such as the international bond market and derivative credit instruments. Eichengreen and Mody argue for paying more attention to international bank lending.

Why? Three reasons.

First, the syndicated bank loan is one of the workhorses of international capital markets.

Second, international bank lending is especially important for private-sector borrowers, whose participation in international capital markets will grow as capital markets are liberalized and state enterprises privatized. Sovereigns and other governmental borrowers rely more on the bond market, while private borrowers are disproportionately important to the market in international bank loans.

Private-sector borrowers establish long-term relationships with banks to resolve information problems. Eichengreen and Mody find that international banks provide more credit to smaller borrowers (about whom information is least complete) than bond markets do. Bank finance dominates that segment of international financial markets with the greatest information asymmetry.

Third, spreads on syndicated bank loans show much less variation than spreads on international bonds. Are bank lenders properly pricing country and credit risk? Does spread compression on syndicated bank loans suggest excessive moral hazard in international bank lending?

Eichengreen and Mody warn against overdependence on high levels of domestic debt. While growth in domestic debt reflects improved intermediation between savers and investors, rapid increases to high levels are viewed as unsustainable and raise the cost of international borrowing. They find evidence of growing bullishness among bank lenders to East Asia in the first half of the 1990s, which could reflect moral hazard, but the jury is still out on that issue. High external short-term debt can coexist with rapid growth for extended periods but is likely to unravel if perceptions of sustainability shift.

This paper — a product of the Development Prospects Group — is part of a larger effort in the group to study the microstructure of international capital markets. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Sydnella Kpundeh, room MC6-767, telephone 202-473-9591, fax 202-522-2578, Internet address skpundeh@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. Ashoka Mody may be contacted at amody@worldbank.org. (43 pages)

2156. How Has Regionalism in the 1990s Affected Trade?

Isidro Soloaga and L. Alan Winters
(August 1999)

The results of a modified gravity model suggest that the "new wave" of regionalism has not boosted intra-bloc trading significantly. Trade liberalization in Latin America did have a positive impact on the imports of bloc members, although MERCOSUR's exports did poorly over the mid-1990s.

Soloaga and Winters apply a gravity model to data on annual nonfuel imports for 58 countries for the years 1980–96, to quantify the effects on trade of recently created or revamped preferential trade agreements (PTAs).

They modify the usual gravity equation to identify the separate effects of PTAs on intra-bloc trade, members' total imports, and members' total exports. They also formally test the significance of changes in the estimated coefficients before and after the blocs' formation.

Their estimates give no indication that the "new wave" of regionalism boosted intra-bloc trade significantly.

They found convincing evidence of trade diversion only for the European Union and the European Free Trade Association. For the same blocs they also observed "export diversion," which would be consistent with these blocs' imposing a welfare cost on the rest of the world.

Trade liberalization efforts in Latin America have had a positive impact on the imports of bloc members (Andean Group, Central American Common Market, Latin American Integration Association, and MERCOSUR). Increasing propensities to export generally accompanied increasing propensities to import, suggesting that general trade liberalization had a strong effect. The exception was MERCOSUR, for which import and export propensities displayed opposite movements, with exports performing worse than expected over the mid-1990s. Although MERCOSUR members have undoubtedly liberalized since the mid-1980s, these results suggest that their trade performance has been influenced more by competitiveness than by trade policy.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to study the effects of regional integration. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at isoloaga@worldbank.org or l.a.winters@sussex.ac.uk. (26 pages)

2157. How Regional Blocs Affect Excluded Countries: The Price Effects of MERCOSUR

Won Chang and L. Alan Winters
(August 1999)

Price data on exports to Brazil from countries excluded from MERCOSUR show that preferential trading agreements hurt nonmember countries by compelling them to reduce their prices to meet competition from suppliers within the regional trading bloc.

The welfare effects of preferential trading agreements are most directly linked to changes in trade prices — that is, the terms of trade.

Chang and Winters use a simple strategic pricing game in segmented markets to measure the effects of MERCOSUR on the pricing of "nonmember" exports to the regional trading bloc. Working with detailed data on unit values and tariffs, they find that the creation of MERCOSUR is associated with significant declines in the prices of nonmembers' exports to the bloc. These can be explained largely by tariff preferences offered to a country's partners.

Focusing on the Brazilian market (by far the largest in MERCOSUR), they show that nonmembers' export prices to Brazil respond to both most-favorable-nation and preferential tariffs. Preferential tariffs induce reductions in nonmember export prices.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to understand the effects of regional integration. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at wchang@worldbank.org or l.a.winters@sussex.ac.uk. (57 pages)

2158. The Effect of Foreign Entry on Argentina's Domestic Banking Sector

George R. G. Clarke, Robert Cull, Laura D'Amato, and Andrea Molinari
(August 1999)

Foreign banks entering Argentina's domestic banking sector in the mid-1990s did not merely follow their clients abroad. They exerted competitive pressure on domestic Argentine banks, especially those focused on mortgage lending or manufacturing. Overhead, profitability, and interest margins were affected least in domestic banks focused on consumer lending, an area in which foreign investors showed little interest.

Clarke, Cull, D'Amato, and Molinari analyze how foreign entry affected domestic banks in Argentina during an especially intense period of entry in the mid-1990s.

Their results are consistent with the hypothesis that foreign banks enter areas where they have a competitive advantage, putting pressure on the domestic banks already focused on that type of lending.

They find that domestic banks with loan portfolios concentrated in manufacturing — an area to which foreign banks have traditionally devoted much of their lending — tended to have lower net margins and lower before-tax profits than other domestic banks. The informational advantages local banks enjoyed probably helped ensure that foreign banks would not drive them from the market.

Domestic banks with greater consumer lending — an area in which foreign banks have not been heavily involved — had higher net margins and greater before-tax profits.

Domestic banks that focused on mortgage lending — an area foreign banks entered aggressively in the mid-1990s — experienced falling net margins and increasing overhead.

There were many domestic bank failures in the mid-1990s, but the banks that failed were not heavily concentrated in the types of lending favored by foreign banks.

This paper — a product of Regulation and Competition Policy and Finance, Development Research Group — is part of a larger effort in the group to investigate the determinants of structural change in developing countries' banking sectors. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-422, telephone 202-473-8526, fax 202-522-1155, Internet address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at gclarke@worldbank.org, rcull@worldbank.org, amolinari@worldbank.org, or investig.monetar@bcra.gov.ar (attention: Laura D'Amato). (30 pages)

2159. Provincial Bank Privatization in Argentina The Why, How, and "So What?"

George R. G. Clarke and Robert Cull
(August 1999)

Argentina's recently privatized provincial banks generate much of their income through service contracts with the provinces, and the transition to commercial banking has been challenging. Available evidence suggests improvements in post-privatization performance, but it is uncertain whether these are sustainable. At the very least, however, a fiscal burden has been lifted from the provinces.

Argentina's provinces offer a unique opportunity to study bank privatization because so many transactions took place there in so short a period in the 1990s (1994–98). As the decade started, every province owned at least one bank, performance in publicly owned provincial banks was substantially worse than in private banks, and the losses incurred imposed substantial fiscal costs on the provinces.

Politicians whose provinces were in dire fiscal straits, their banks losing money at a fast rate, were most willing to seize opportunities to privatize, even though overstaffed provincial banks were harder to privatize. Deposit loss and liquidity problems associated with the Tequila crisis made privatization more likely.

The right political situation is necessary but not sufficient to ensure good privatizations. First, one must find a buyer, and Argentina's provincial banks were the least attractive in the banking sector. So the provinces settled for purchasers that were not first-tier banks. Many of them were small wholesale banks that had to make the difficult transition to retail banking.

Three important concessions were made to purchasers: contracts to provide post-privatization services to the provinces, portfolio guarantees, and the assumption of only "good" assets. In return, provincial politicians were granted restrictions on branch closings and layoffs of bank employees.

Both types of accommodation were costly to the purchasers and the provinces. These transactions probably could not have been completed without long-term loans from the Fondo Fiduciario.

Were the Fondo Fiduciario loan funds put to good use? Did privatization leave provincial banking on a sounder footing? Initial indications are that the situation has improved in most provinces. And the provinces experiencing post-privatization difficulties tend not to have participated fully in the Fondo Fiduciario privatization program.

But the privatized banks rely on their service contracts with provinces to generate a big share of their income and are having trouble making the transition to commercial banking. It is uncertain whether the newly created banks are sustainable. But at least a fiscal burden has been lifted from the provinces.

This paper — a product of Regulation and Competition Policy and Finance, Development Research Group — is part of a larger effort in the group to investigate the determinants of structural change in developing countries' banking sectors. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-422, telephone 202-473-8526, fax 202-522-1155, Internet address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/

Workpapers/home.html. The authors may be contacted at gclarke@worldbank.org or rcull@worldbank.org. (30 pages)

2160. Protecting the Poor from Macroeconomic Shocks

Francisco Ferreira, Giovanna Prennushi, and Martin Ravallion
(August 1999)

To minimize the harmful impact on poor people of macroeconomic shocks, sound policies for dealing with crises — and an adequate public safety net — should be in place before a crisis starts.

Many developing countries faced macroeconomic shocks in the 1980s and 1990s. The impact of the shocks on welfare depended on the nature of the shock, on initial household and community conditions, and on policy responses.

To avoid severe and lasting losses to poor and vulnerable groups, governments and civil society need to be prepared for a flexible response well ahead of the crisis.

A key component of a flexibly responsive system is an effective permanent safety net, which will typically combine a workfare program with targeted transfers and credit.

Once a crisis has happened, several things should be done:

- Macroeconomic policies should aim to achieve stabilization goals at the least cost to the poor. Typically, a temporary reduction in aggregate demand is inevitable but as soon as a sustainable external balance has been reached and inflationary pressures have been contained, macroeconomic policy should be eased (interest rates reduced and efficient public spending restored, to help offset the worst effects of the recession on the poor). A fiscal stimulus directed at labor-intensive activities (such as building rural roads) can combine the benefits of growth with those of income support for poor groups, for example.
- Key areas of public spending should be protected, especially investments in health care, education, rural infrastructure, urban sanitation, and microfinance.
- Efforts should be made to preserve the social fabric and build social capital.
- Sound information should be generated on the welfare impacts of the crisis.

This paper — a joint product of the Poverty Group, Poverty Reduction and Economic Management Network, and Poverty and Human Resources, Development Research Group — is part of a larger effort in the Bank to inform policy choices aimed at minimizing the social costs of macroeconomic shocks. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact PREM Advisory Services, room MC3-825, telephone 202-458-7736, fax 202-522-1135, Internet address premadvisory@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at fferreira@econ.puc-rio.br, gprennushi@worldbank.org, or mravallion@worldbank.org. (24 pages)

2161. Will the Real "Natural Trading Partner" Please Stand Up?

Maurice Schiff
(August 1999)

Adherents of the "natural trading partner" hypothesis argue that preferential trade agreements are more likely to improve welfare if participating countries already trade disproportionately with each other. Opponents argue the opposite. Neither side is right. The hypothesis holds up only if two countries are "natural trading partners" in the sense that one country tends to import what the other exports.

Adherents of the "natural trading partner" hypothesis argue that preferential trade agreements (PTAs) are more likely to improve welfare if participating countries already trade disproportionately with each other.

Opponents of the hypothesis claim that the opposite is true: welfare gains are likely to be greater if participating countries trade less with each other.

Schiff shows that neither analysis is correct. The "natural trading partner" hypothesis can be rescued if it is redefined in terms of complementarity or substitutability in the trade relations of countries, rather than in terms of their volume of trade.

Schiff asks not whether a country should form or join a trading bloc but which partner or partners it should select if it does join such a bloc.

He shows that the pre-PTA volume of trade is not a useful criterion for selecting a partner. The pre-PTA volume is equal to zero if the partner is an importer of the good sold to the home country and it is indeterminate if the partner is an exporter of that good.

Among Schiff's conclusions:

- The home country is better off with a large partner country. First, a large partner is more likely to satisfy the home country's import demand at the world price. Second, the home country is likely to gain more on its exports to a large partner country, because that partner is likely to continue importing from the world market after formation of the trading bloc. And since the partner charges a tariff on imports from the world market, the home country is more likely to improve its terms of trade by selling to the partner at the higher tariff-inclusive price if the partner is large.
- The PTA as a whole is likely to be better off if each country imports what the other exports (rather than each country importing what the other imports). Losses are similar but less likely, while gains are both more likely and the same or larger.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to understand the economics of regional integration. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Kasilag, room MC3-321, telephone 202-473-9081, fax 202-522-1159, Internet address mkasilag@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at mschiff@worldbank.org. (25 pages)

2162. Quantifying the Fiscal Effects of Trade Reform

Shantayanan Devarajan, Delfin S. Go, and Hongyi Li
(August 1999)

A general equilibrium tax model estimated for 60 countries provides a simple but rigorous method for estimating the fiscal impact of trade reform.

Using a tax model of an open economy, Devarajan, Go, and Li provide a simple but rigorous method for estimating the fiscal impact of trade reform.

Both the direction and the magnitude of the fiscal consequences of trade reform depend on the elasticities of substitution and transformation between foreign and domestic goods, so they provide empirical estimates of those elasticities.

They also discuss the implications of their analysis for public revenue.

In general, they find that it matters what the values of the two elasticities are relative to each other. If only one of the elasticities is low (close to zero), revenue will drop unequivocally as a result of tariff reform, reaching close to the maximum drop whether or not the other elasticity is high.

For imports to grow and tariff collection to compensate for the tax cut, the import elasticity has to be high. Because of the balance of trade constraint, however, imports cannot substitute for domestic goods unless supply is able to switch toward exports. Hence, the export transformation elasticity has to be high as well.

As substitution possibilities between foreign and domestic goods increase, a tariff reform can theoretically be self-financing. But if the elasticities are less than "large," tax revenue will fall with tariff reduction and further fiscal adjustments will be necessary.

Devarajan, Go, and Li provide empirical estimates of the possible range of values for the elasticities of about 60 countries, using various approaches. The elasticities range from 0 to only 3 in most cases — nowhere near the point at which tariff reform can be self-financing.

This paper — a product of Public Economics, Development Research Group — is part of a larger effort in the group to develop and apply tools to analyze fiscal reform. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7698, fax 202-522-1154, Internet address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at sdevarajan@worldbank.org, dgo@worldbank.org. (53 pages)

2163. Coverage under Old-Age Security Programs and Protection for the Uninsured — What Are the Issues?

Estelle James
(August 1999)

The shift toward social security systems with a tighter link between benefits and contributions will make such systems more fiscally sustainable. But to protect the uninsured and underinsured, such programs should be complemented by better social assistance programs for low-income groups.

Most old people in developing countries are uninsured by formal social security programs. Economic growth is the key to increased coverage, but policy also matters, argues James.

Contributory insurance programs may not work for much of the population in developing economies.

Moreover, the tradeoffs between higher take-home pay and old-age benefits, between maximizing coverage and minimizing evasion, and between increased coverage and greater competitiveness, must be carefully evaluated before opting for expanded coverage, especially among low-income groups.

Keeping the contribution rate low and including some redistribution toward low-income groups in contributory systems may help reduce the number of uninsured, while avoiding costly tradeoffs.

Recent years have seen a tighter link between benefits and contributions in contributory systems — most obviously in the shift toward multipillar systems with large defined-contribution components, usually accompanied by a modest redistributive public pillar. This tighter link makes social security systems more fiscally sustainable and may be considered a precondition for financially sound expansion of coverage.

At the same time, the number of uninsured or underinsured (who have contributed only small amounts) could increase, as a result of the tighter benefit-contribution link.

The uninsured fall into two groups:

- Workers who spend much of their lives in agriculture or the informal sector (often self-employed or in small firms), in jobs not covered by contributory programs. Many of these workers are low earners, for whom contributing today for potential old-age benefits may not be welfare-enhancing — and governments do not have the capacity to compel contributions. Social security reforms that make benefits contingent on contributions should include better social assistance programs for these low-income groups. Efficient program design and program costs must also be considered.
- Women who, having worked mostly in the household, expect to be supported by the family system, which may fail them in old age. Family support for dependent spouses should be incorporated into the pay-out phase of the defined-contribution pillar, to keep old women out of poverty.

This paper — a joint product of Poverty and Human Resources, Development Research Group, and the Human Development Division, World Bank Institute — was presented at the Inter-American Development Bank Conference on Social Protection, February 4–5, 1999. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Marianne Leenaerts, room G2-030, telephone 202-458-4264, fax 202-676-0961, Internet address mleenaerts@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at ejames3@worldbank.org. (21 pages)

2164. Challenging El Salvador's Rural Health Care Strategy

Maureen Lewis, Gunnar S. Eskeland, and Ximena Traa-Valerezo
(August 1999)

Low-skilled "health promoters" posted in rural villages are doing little to improve health or health-seeking behaviors. In a supply-driven system, such workers have too few incentives, too little knowledge, and too little supervision. Results can be improved without increasing costs.

Can a supply-driven network of underskilled rural health promoters make a difference in rural health care? There are few, if any, signs that the current rural health strategy in El Salvador is working, whether the health promoters are government employees or nongovernmental organization (NGO) workers.

Lewis, Eskeland, and Traa-Valerezo arrived at this conclusion after conducting interviews and analyzing primary and secondary data.

The village-based health promoters lack incentives and supervision, and ultimately have little to offer local communities. NGO workers are more successful than government workers, but neither group performs satisfactorily.

Even the rural poor use private services quite intensively, despite the high cost of the services and of getting access to them. Moreover, people seem to seek the services they need. They select self-treatment in

50 percent of illness episodes, with about the same success rate as when they use health providers.

Other options should be considered, as results can be improved without increasing costs.

This paper — a product of the Human Development Sector Units, Europe and Central Asia Region and Latin America and Caribbean Region; and Public Economics, Development Research Group — is part of a larger effort in the Bank to encourage appropriate policies and programs in the health sector. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maureen Lewis, room H7-221, telephone 202-473-9080, fax 202-522-3665, Internet address mlewis1 @worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The other authors may be contacted at geskeland@worldbank.org or xtraavalerezo @worldbank.org. (48 pages)

2165. The Russian City in Transition: The First Six Years in 10 Volga Capitals

Martha de Melo and Gur Ofer
(August 1999)

Reform in 10 regional capitals along the Volga River is associated with favorable initial conditions. And both reform and favorable initial conditions are associated with relatively successful economic outcomes — except where access to extra resources improves outcomes or where weak government undermines success.

After studying the nature and variety of transition in 10 regional capitals of Russia, de Melo and Ofer observe that:

• All cities have experienced radical changes in their institutions and economies — changes associated on the one hand with the abolition of central planning and the introduction of freer markets, and on the other hand with political decentralization and the introduction of local elections.

• These changes have led to a wide diversity in economic and social outcomes, reflecting differences in the central government's (inequitable) economic relations with regions as well as differing local and regional policies. Most northern cities adopted policies more consistent with the central government's support of free market reforms; most southern (Red Belt) cities pursued more cautious, protective policies.

• City governments are using more proactive economic policies, including interventions to save local industries. Such efforts highlight the dual nature of the Russian transition, characterized by a shift in power from central to local government as well as from public to private enterprises.

• A major difficulty facing Russian cities is the cost of subsidies to housing and utilities. Real estate in general constitutes a major expenditure category for local government rather than, as in most western cities, a major source of revenue. A transition in this area alone could revolutionize the finances and independence of Russian cities.

• The jury is still out on what the right social and industrial policies were during the first years of reform. Ulyanovsk clearly lagged on market reforms, and Saratov represents a model of liberalization without institutional support. Both extremes have failed, but so far the social consequences of the Saratov model appear to be worse than those of the Ulyanovsk model.

• With the credibility of Russia's federal government at an all-time low, foreign investors have no choice but to rely on the competence and reliability of local leaders, especially mayors and governors. They will be looking for evidence of accountability in the form of the rule of law, and transparency in the form of reliable public information. Information at the city level — often unavailable and not easily accessible — would be very useful in attracting local researchers to monitor progress (as a basis for accountability) and diagnose problems (as a basis for public policy debate and political decisions).

This paper — a product of Public Economics, Development Research Group — is part of a larger effort in the group to study the causes and effects of fiscal decentralization. The project was carried out in cooperation with the New Economic School (NES) in Moscow. This is the first of two papers on the Volga cities. Copies are available free from the World Bank, 1818 H Street, NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7698, fax 202-522-1154, Internet address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at rhanrott@erols.com or gur.ofer@yale.edu. (58 pages)

2166. Seeking Votes: The Political Economy of Expenditures by the Peruvian Social Fund (FONCODES), 1991–95

Norbert R. Schady
(August 1999)

As the literature on political influences on the allocation of discretionary funds predicts, spending by the Peruvian Social Fund, FONCODES, increased significantly before elections. FONCODES projects were also directed at provinces where the marginal political impact of expenditures was likely to be greatest.

President Alberto Fujimori created the Peruvian Social Fund (FONCODES) in 1991 with the stated objectives of generating employment, helping to alleviate poverty, and improving access to social services.

Schady uses province-level data on monthly expenditures, socioeconomic indicators, and electoral outcomes to analyze political influences on the timing and geographic distribution of FONCODES expenditures between 1991 and 1995.

He finds that:

• FONCODES expenditures increased significantly before elections.

• FONCODES projects were directed at poor provinces, as well as provinces in which the marginal political impact of expenditures was likely to be greatest.

The results are robust to many specifications and controls. The Peruvian data thus support predictions made in the literature on political business cycles as well as the literature on political influences on the allocation of discretionary funds.

This paper — a product of the Poverty Division, Poverty Reduction and Economic Management Network — is part of a larger effort in the network to understand the functioning and impact of social funds. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Norbert Schady, room MC4-629, telephone 202-458-8247, fax 202-222-3283, Internet address nschady@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.

worldbank.org/html/dec/Publications/Workpapers/home.html. (30 pages)

2167. Bonds and Bridges: Social Capital and Poverty

Deepa Narayan
(August 1999)

Whatever their nature, interventions to reduce poverty should be designed not only to have an immediate impact on poverty, but also to foster a rich network of cross-cutting ties within society and between society's formal and informal institutions.

Using the lens of social capital — especially bridging or cross-cutting ties that cut across social groups and between social groups and government — provides new insights into policy design.

Solidarity within social groups creates ties (bonding social capital) that bring people and resources together. In unequal societies, ties that cut across groups (bridging social capital) are essential for social cohesion and for poverty reduction. The nature of interaction between state and society is characterized as complementarity and substitution. When states are functional, the informal and formal work well together — for example, government support for community-based development. When states become dysfunctional, the informal institutions become a substitute and are reduced to serving a defensive or survival function.

To move toward economic and social well-being, states must support inclusive development. Investments in the organizational capacity of the poor are critical. Interventions are also required to foster bridging ties across social groups — ethnic, religious, caste, or racial groups. Such interventions can stem from the state, private sector, or civil society and include:

- Changes in rules to include groups previously excluded from formal systems of finance, education, and governance, at all levels.
- Political pluralism and citizenship rights.
- Fairness before the law for all social groups.
- Availability of public spaces that bring social groups together.
- Infrastructure that eases communication.
- Education, media, and public information policies that reinforce norms and values of tolerance and diversity.

This paper — a product of the Poverty Division, Poverty Reduction and Economic Management Network — is part of a larger effort in the network to understand the role of social capital. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Ben Jones, room MC3-782, telephone 202-473-9475, fax 202-522-3283, Internet address bjones1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at dnarayan@worldbank.org. (52 pages)

2168. Wage and Productivity Gaps: Evidence from Ghana

Dorte Verner
(August 1999)

Ghana's labor market is segmented, and the workforce adds more to firm-level productivity than its cost would suggest. The more training and education workers have, the higher their wages and the greater their productivity. In short, investments in human capital improve productivity.

Verner uses a unique data set (combining information about individual workers with information about the firms employing them) to jointly estimate production functions and wage equations. This approach allows her not only to assess the marginal impact on wages of demographic and other characteristics but also to compare how these variables affect productivity among various groups of workers. Among her findings:

- Female employees are paid less than male employees, but this negative wage premium does not reflect commensurately lower productivity.
- Employees' experience is reflected equally in wages and in productivity differentials over the worker's life cycle. Wages and productivity both increase, but at a decreasing rate.
- The more training and education workers have, the higher their wages and the greater their productivity.
- Productivity differences can be demonstrated for five levels of education completed. The productivity gap is greater than the wage gap.
- Returns to education are similar across gender, sectors, and level of unionization, but they are lower for unskilled workers than for skilled workers.
- Training supplied by outside providers (as opposed to in-house training) is associated with higher wages but appears to have no (immediate) impact on productivity.
- Trade union members' wages are in line with productivity. Both wages and productivity are higher for union members than for non-union members.

This paper — a product of Human Development 3, Africa Technical Families —is part of a larger effort in the region to understand how labor markets work in Africa. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hazel Vargas, room I8-138, telephone 202-473-7871, fax 202-522-2119, Internet address hvargas@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at dverner@worldbank.org. (49 pages)

2169. Corruption, Public Finances, and the Unofficial Economy

Simon Johnson, Daniel Kaufmann, and Pablo Zoido-Lobatón
(August 1999)

In this sample of 49 Latin American, OECD, and transition economies, it is the ineffective and discretionary administration of tax and regulatory regimes — not higher tax rates alone — as well as corruption, that increases the size of the unofficial economy. And countries with a larger unofficial economy tend to grow more slowly.

Johnson, Kaufmann, and Shleifer (1997) found that, in post-communist economies, the unofficial economy's share of GDP is determined by the extent of control rights held by bureaucrats and politicians.

Exploring in detail the role of taxation and bribery, and using data from an expanded data set of 49 Latin American, OECD, and transition economies, Johnson, Kaufmann, and Zoido-Lobatón find that the unofficial economy accounts for a larger share of GDP where there is great bureaucratic inefficiency and discretion, and where firms experience a greater tax and regulatory burden, as well as more bribery and corruption. The unofficial economy is also much larger where there is less state revenue and where the rule of law is weak. They also find that countries with a larger unofficial economy tend to grow more slowly. Thus, this framework suggests an additional channel whereby corruption and ineffective regulatory and tax administration can result in lower growth: the unofficial economy.

Wealthy OECD economies and some Eastern European economies find themselves in the "good equilibrium" of relatively low regulatory and tax burden (not necessarily low statutory tax rates), sizable revenue mobilization, good rule of law and control of corruption, and a small unofficial economy.

Several countries in Latin America and the former Soviet Union exhibit characteristics consistent with a "bad equilibrium": the discretionary application of heavy regulatory and tax burdens, the weak rule of law, heavy bribery, and an active unofficial economy.

In this large country sample (unlike in the earlier framework for transition economies only), the authors find that it is the ineffective and discretionary application of regulatory and tax regimes in many countries — not higher tax rates by itself — that increase the size of the unofficial economy. The tax burden reported by firms appears to be more a function of regulatory and bureaucratic inefficiency and discretion rather than of tax rates alone.

This paper — a product of the Governance, Regulation, and Finance Group, World Bank Institute — is part of a larger effort in the institute to improve our understanding of institutional issues and their effects on development and of building a major new database on institutional indicators. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Diane Bouvet, room G2-136, telephone 202-473-5818, fax 202-334-8350, Internet address dbouvet@worldbank.org. Policy Research Working Papers are also posted on the web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at dkaufmann@worldbank.org or pzoidolobaton@worldbank.org. (51 pages)

2170. The Distributional Consequences of Monetary Policy: Evidence from Malaysia

Ilker Domaç
(August 1999)

Policymakers in Malaysia should weigh the distributional consequences of policy actions. They should also consider measures to alleviate the disproportionate impact that market imperfections have on small and medium-size industries.

Domaç provides a descriptive analysis of credit and monetary policies in Malaysia and investigates the distributional consequences of monetary policy there by focusing on small and medium-size industries and large manufacturing firms.

Domaç suggests that "payoff" or "default" risk — as captured by the spread between safe and risky debt — is still well above its pre-crisis level, underscoring the increased agency costs of external finance. The decline in lending activity in the first half of 1998 can be attributed to the reduced supply of bank credit relative to demand.

Empirical results from vector autoregression analysis demonstrate that monetary tightening disproportionately affects small and medium-size enterprises.

Moreover, monetary shocks contribute substantially more to small and medium-size firms' variance of production (71 percent) than to that of large manufacturing firms (30 percent).

These findings corroborate the notion that small and medium-size industries face greater market imperfections, which in turn magnify the effects of a given policy shift.

Policymakers should weigh the distributional consequences of policy actions and should consider measures to alleviate the disproportionate impact that market imperfections have on small and medium-size industries.

Measures to alleviate information asymmetry in credit markets — including the promotion of cooperative or mutual guarantee schemes for small and medium-size enterprises — are one useful option. Groups of firms in Southern Europe have made wide use of mutual guarantee schemes — usually within a specific industry — to provide a privately organized "insurance system" for lending banks that allows the banks to rely less on the assets of individual companies within the group in making loan decisions. The pooling effects of such a system would reduce the risk to the bank of default and would give members of the society an incentive to reveal information to the society that they might hesitate to give to the bank.

This paper — a product of the Poverty Reduction and Economic Management Unit, East Asia and Pacific Region — is part of a larger effort in the region to analyze the patterns and consequences of the East Asian crisis, with particular reference to the links between the real and financial sectors. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Armanda Carcani, room O4-015, telephone 202-473-0241, fax 202-522-2751, Internet address acarcani@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at idomac@worldbank.org. (36 pages)

2171. Productivity Growth and Convergence in Agriculture and Manufacturing

Will Martin and Devashish Mitra
(August 1999)

The growth of agricultural productivity is widely believed to be low. But this study finds the productivity growth rate in agriculture to be higher than that in manufacturing, both on average and for groups of countries at different stages of development. This suggests that a large agricultural sector need not be a disadvantage for growth performance — and may be an advantage.

Martin and Mitra examine the growth and convergence of total factor productivity in agriculture and manufacturing in a large sample of countries spanning many levels of development over the period 1967–92.

There is a widely held but rarely tested view that the rate of growth in agricultural productivity is invariably low. But Martin and Mitra find that the rate of productivity growth in agriculture has been higher than in manufacturing both on average and for groups of countries at different stages of development.

Martin and Mitra find evidence of high rates of technical progress in both agriculture and manufacturing. At all levels of development, however, technical progress appears to have been faster in agriculture than in manufacturing. Moreover, there appears to be a stronger tendency for levels and growth rates of total factor productivity to converge in agriculture than in manufacturing — suggesting that international dissemination of innovations has been relatively rapid in agriculture.

These results may well reflect the important investments in agricultural research and development in recent decades. They also highlight the need to continue developing and disseminating innovations if countries are to maintain high rates of productivity growth.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to understand the links between trade and growth. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159 (Internet address ltabada@worldbank.org). Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at wmartin1@worldbank.org or mitrad @servms.fiu.edu. (28 pages)

2172. The East Asian Crisis: Investigating Causes and Policy Responses

Warwick McKibbin and Will Martin
(August 1999)

The primary cause of the East Asian crisis was a fundamental reassessment of the profitability of investments in the region. As a policy response, temporary fiscal expansion generally appears preferable to monetary expansion or to permanent fiscal expansion.

McKibbin and Martin identify as the primary cause of the East Asian crisis a fundamental reassessment of the profitability of investments in the region.

They identify a number of secondary shocks as well, including interest risk premia, monetary expansion, and declines in output brought about by failures of the financial market.

Unlike the Latin American crisis of the 1980s, the East Asian crisis did not reflect commodity price shocks, large changes in world interest rates, fiscal imbalances, or inflationary shocks. It involved large-scale borrowing abroad, but by the private sector rather than the government — and for the normally well-regarded purpose of funding capital investment.

It seems unlikely that terms of trade shocks or changes in exchange rates due to pegging to the dollar could, alone, have caused an adjustment crisis of this magnitude — although they could have helped trigger the crisis.

More important, expectations of future growth in returns to the corporate sector began to fall. Declines in asset valuations caused major shifts in investment portfolios, and the consequences of asset market shocks were compounded by secondary shocks associated with the abrupt shift to floating rates, concerns about the credibility of government policies, weaknesses in financial sectors, and inadequacies in the mechanisms for corporate restructuring and liquidation.

McKibbin and Martin use a forward-looking modeling framework to capture some of the major interactions between asset markets, output, and trade in the countries worst hit by the crisis. They find that the model is able to capture the main features of the crisis.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to understand the links between trade and growth. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. Will Martin may be contacted at wmartin1 @worldbank.org. (57 pages)

2173. The Intriguing Relation between Adult Minimum Wage and Child Labor

Kaushik Basu
(August 1999)

Raising adult wages through a minimum wage law can in some circumstances have the paradoxical effect of increasing the amount of child labor. In other words, using minimum wage legislation as a form of international labor standard can exacerbate problems of child labor.

According to International Labour Organisation estimates, roughly 250 million children work full or part time, most of them in developing countries. Because most parents send their children to work only when compelled by poverty to do so, one would expect an increase in adult wages to reduce the amount of child labor.

But an increase in adult wages achieved through a minimum wage law sometimes has a paradoxical effect.

It can, for instance, cause some adults to be unemployed and force them to send their children to work. This in turn displaces more adult labor, with the result that more children are sent to work.

Basu analyzes this process with a view to predicting the incidence of child labor. He shows that, for appropriate parametric configurations, child labor may rise or fall as the adult minimum wage is raised.

This paper — a product of the Office of the Senior Vice President, Development Economics — is part of a larger effort in the Bank to promote understanding of the causes of child labor. The study was funded by the Bank's Research Support Budget under the research project "Literacy and Child Labor" (RPO 683-07). Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michelle Mason, room MC4-338, telephone 202-473-8811, fax 202-522-1158, Internet address mmason1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at kbasu@worldbank.org. (20 pages)

2174. Prospective Deficits and the Asian Currency Crisis

Craig Burnside, Martin Eichenbaum, and Sergio Rebelo
(September 1999)

The recent Asian currency crisis was caused by large prospective fiscal deficits associated with implicit bailout guarantees to failing banking systems. Absent the political will to raise taxes or cut spending, governments must resort to seignorage revenues to pay for the bailout of the banking system. In a world of forward-looking agents, this makes a currency crisis inevitable.

Burnside, Eichenbaum, and Rebelo argue that the recent Asian currency crisis was caused by large *prospective* fiscal deficits associated with implicit bailout guarantees to failing banking systems.

They articulate this view using a simple dynamic general equilibrium model, whose key feature is that a speculative attack is inevitable once the present value of future government deficits rises. This is true regardless of the government's foreign reserves position or the initial level of its debt.

The government cannot prevent a speculative attack but it can affect its timing. The longer the delay, the higher inflation will be under flexible exchange rates.

The authors present empirical evidence in support of the two key assumptions of their model:

- Large losses in the banking sector were associated with large increases in Asian governments' prospective deficits.
- The public knew that the banks were in trouble before the currency crisis.

This paper — a product of Macroeconomics and Growth, Development Research Group — is part of a larger effort in the group to study the causes and effects of currency crises. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Emily Khine, room MC3-347, telephone 202-473-7471, fax 202-522-3518, Internet address kkhine@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at aburnside@worldbank.org, eich@nwu.edu, or s-rebelo@nwu.edu. (51 pages)

2175. Sector Growth and the Dual Economy Model: Evidence from Côte d'Ivoire, Ghana, and Zimbabwe

Niels-Hugo Blunch and Dorte Verner
(September 1999)

Focusing mainly on industry has not been optimal policy in Côte d'Ivoire, Ghana, and Zimbabwe. For maximum economywide growth, it would have been better to balance policies to facilitate growth in all three sectors: agriculture, industry, and services.

Blunch and Verner analyze and compare sectoral growth in three African economies — Côte d'Ivoire, Ghana, and Zimbabwe — since 1965.

They extend the classic dual economy model — consisting of the agriculture and industry sectors — by adding the services sector.

For all three countries, they find at least one statistically significant long-run relationship for sectoral GDP. This indicates a large degree of interdependence in long-run growth among the three sectors.

This also provides evidence against the basic dual economy model, which implies that a long-run relationship cannot exist between agricultural and industrial output.

Analysis of the impulse response and analysis of short-run sectoral growth support the results on the interdependence of sectoral growth. Both imply that a positive link exists between growth in industry and growth in agriculture.

Their findings contradict the literature on the dual economy — and suggest that more attention should be paid to intersectoral dynamics and dependencies in Sub-Saharan Africa. Why? Because an adverse shock in, say, agriculture after a drought is likely to have an adverse impact on other economic sectors. Policymakers should try to accommodate not only the initial shock in agriculture but also its adverse effects in other sectors.

They find that focusing mainly on industry was not optimal policy in Côte d'Ivoire, Ghana, and Zimbabwe. For maximum economywide growth, it would have been better to balance policies to include all three sectors: agriculture, industry, and services.

This paper is a product of Human Development 3, Africa Technical Families. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hazel Vargas, room I8-138, telephone 202-473-7871, fax 202-522-2119, Internet address hvargas@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. Dorte Verner may be contacted at dverner@worldbank.org. (25 pages)

2176. Fiscal Risks and the Quality of Fiscal Adjustment in Hungary

Hana Polackova Brixi, Anita Papp, and Allen Schick
(September 1999)

Hungary's government has made great progress toward revealing the true fiscal cost of its budgetary and off-budget programs, containing the financial risks of its policies, and improving the management of public expenditures and contingent liabilities. Although far from complete, fiscal adjustment in Hungary has been successful not only in cutting the budget deficit but also in reducing less visible aspects of fiscal vulnerability.

The government of Hungary has contained the main fiscal risks of the transition to a market economy. It has paid off and resolved most problems in the banking and enterprise sectors. Since 1995 it has implemented fiscal adjustment with the objective of long-term fiscal stability rather than an immediate deficit target. The main result has been pension reform, which has raised temporary deficits but reduced the long-term public liability. Only the health sector awaits the reform needed for long-term fiscal stability.

Levels of government spending, budget deficits, and public service remain high, but the government has made great progress toward rationalizing public spending and improving the management of budget and off-budget fiscal risks.

In the transition, the government has taken on new fiscal risks — mainly state guarantees and growing programs of credit and guarantee agencies (operating on behalf of government) organized after privatization to support, first, industries and, later, exporters. The government has dealt with these new programs of contingent government support prudently and transparently, with reasonable ceilings on (and reporting of) risks.

Hungary is likely to face pressure for additional spending. Priorities in fiscal policy should include reforming health financing, establishing checks on hidden subsidies in guarantee programs, and determining the government's optimal exposure to risk.

In terms of institutions, the government should aim to create a more flexible, responsive budget process and greater capacity to analyze medium-term fiscal risks, to build a more results-oriented budget management system, and to improve mechanisms for sharing risk between the public and private sectors under government programs.

This paper — a product of the Poverty Reduction and Economic Management Sector Unit, Europe and Central Asia Region — is part of a larger effort in the region to enhance the quality of fiscal adjustment in countries preparing for accession to the European Union. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Alison Panton, room H4-296, telephone 202-458-5433, fax 202-522-2751 (Internet address apanton@worldbank.org). Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at hpolackova@worldbank.org or apapp@worldbank.org. (50 pages)

2177. Fiscal Adjustment and Contingent Government Liabilities: Case Studies of the Czech Republic and Macedonia

Hana Polackova Brixi, Hafez Ghanem, and Roumeen Islam
(September 1999)

Governments' contingent liabilities increase fiscal vulnerability, but are omitted in traditional measures of the current deficit. In the Czech Republic this omission may mean that fiscal adjustment has been overstated by 3 to 4 percent of annual GDP, with future budgets having to pay for past guarantees. The stock of existing contingent liabilities in Macedonia could add 2 to 4 percent of GDP to that country's future deficits.

To control the expansion of government contingent liabilities and reduce fiscal vulnerability, one must be able to identify and measure them. Brixi, Ghanem, and Islam discuss how this may be done and demonstrate how the assessment of fiscal adjustment may change substantially when a broader picture of government liabilities is included.

They base their analysis on experience in analyzing fiscal adjustment in the Czech Republic and Macedonia.

Their work demonstrates the importance of including contingent liabilities when assessing the magnitude of the true fiscal adjustment and when analyzing fiscal sustainability.

To the extent that explicit expenditures are shifted off-budget or replaced by guarantees, the achieved improvement in fiscal balances is overstated.

For the Czech Republic, adjustment may have been overstated by some 3 to 4 percent of annual GDP. A stabilization program accompanied by a build-up of contingent liabilities, particularly state guarantees and obligations to cover liabilities emerging from directed credit, may not be sustainable.

In Macedonia, the present fiscal equilibrium may be temporary because the stock of existing contingent liabilities could add 2 to 4 percent of GDP to future deficits. And methods used to reduce the "traditional" deficit are unlikely to be sustainable without further modification.

Brixi, Ghanem, and Islam conclude that governments:

- Must find better ways to identify and evaluate contingent liabilities arising from the banking system, nonbanking financial institutions, public enterprises, or the contingent and direct liabilities of subnational governments.
- Need to better manage their risks — for example, building adequate reserve funds and hedging risk, where possible.
- Should examine the implications of the bias toward adding contingent liabilities and develop administrative reform as part of analyzing budget management.

This paper — a joint product of the Poverty Reduction and Economic Management Sector Unit, Europe and Central Asia Region, and the Office of the Senior Vice President and Chief Economist, Development Economics — is part of a larger effort in the Bank to support the quality of fiscal adjustment in its client countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Alison Panton, room H4-296, telephone 202-458-5433, fax 202-522-2751, Internet address apanton@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at hpolackova@worldbank.org, hghanem@worldbank.org, or rislam@worldbank.org. (41 pages)

2178. Nonfarm Income, Inequality, and Land in Rural Egypt

Richard H. Adams, Jr.
(September 1999)

Policymakers interested in reducing poverty and improving income distribution in rural Egypt should focus on nonfarm income — which not only accounts for almost 60 percent of total income for the rural poor but also favorably affects income distribution. Nonfarm income is an inequality-reducing source of income in a land-scarce setting such as rural Egypt because inadequate land "pushes" poorer households out of agriculture and into the nonfarm sector.

Adams uses household-level data from a nationally representative survey to analyze the impact of nonfarm income on income inequality in rural Egypt. After pinpointing the importance of nonfarm income to the rural poor, Adams decomposes total rural income among five sources: nonfarm, agricultural, livestock, rental, and transfer.

He shows that while nonfarm income represents the most important inequality-reducing source of income, agricultural income represents the most important inequality-increasing source.

A 1 percent marginal increase in nonfarm income will cause the Gini coefficient of overall income to fall by 12.8 percent. But a 1 percent marginal increase in agricultural income will cause the Gini coefficient to rise by 15.8 percent. The reason for this difference has to do with land, which is distributed very unevenly in this study.

Regression analysis of the determinants of income shows that land ownership is positively and statistically related to the receipt of agricultural income but has no statistical relationship to the receipt of nonfarm income.

This leads Adams to three conclusions:

- If policymakers are interested in reducing poverty and improving income distribution in rural Egypt, they should focus on nonfarm income — which not only accounts for almost 60 percent of total income for the rural poor but also favorably affects income distribution.
- Nonfarm income is an inequality-reducing source of income in a land-scarce setting such as rural Egypt because inadequate land "pushes" poorer households out of agriculture and into the nonfarm sector.

• Agricultural income contributes most to rural income inequality because it is highly correlated with land ownership and with total rural income.

This paper — a product of the Human Development Sector Group, Middle East and North Africa Region — is part of a larger effort in the region to identify the sources of income for the rural poor. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Moira Coleridge-Taylor, room MC3-876, telephone 202-473-3704, fax 202-522-3283, Internet address mcoleridgetaylor @worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at radams @worldbank.org. (37 pages)

2179. How Child Labor and Child Schooling Interact with Adult Labor

Ranjan Ray
(September 1999)

The link between household poverty and child labor is much stronger in Pakistan than in Peru. Providing good schools in South Asia could help reduce child labor. The link between child labor and adult labor markets varies with gender.

Using data from Peruvian and Pakistani household surveys, Ray tests the hypotheses of a positive association between child labor hours and poverty and a negative association between child schooling and poverty.

Both hypotheses are confirmed using Pakistani data but not using Peruvian data.

What explains these divergent results?

The link between household poverty and child labor is much stronger in Pakistan than in Peru — perhaps partly because Pakistani schools are not as good as those in Peru, and perhaps partly because Pakistani families value education less, especially for girls. Also, Peruvian children combine schooling with employment, unlike Pakistani children.

Rising wages for men significantly reduce the labor hours of Peruvian girls. Strong complementarity exists between the labor market for women and that for girls in Pakistan.

Providing good schools in South Asia could help reduce child labor and break the strong link there between poverty and hours spent in child labor.

Data from both countries confirm the positive role more adult education can play in improving child welfare. Adult education's impact on child labor is considerably greater in Pakistan than in Peru. One generation's lack of skills and education causes the next to remain uneducated and unskilled as well.

This paper — a product of the Office of the Senior Vice President, Development Economics — is part of a larger study funded by the Bank's Research Support Budget under the research project "Intrahousehold Decisionmaking, Literacy, and Child Labor" (RPO 683-07). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michelle Mason, room MC4-338, telephone 202-473-0809, fax 202-522-1158, Internet address mmason1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at ranjan.ray@utas.edu.au. (39 pages)

2180. Regulating Privatized Infrastructures and Airport Services

Ofelia Betancor and Robert Rendeiro
(September 1999)

A background paper for a course on transport privatization and regulation, organized by the World Bank Institute.

For a World Bank Institute course on transport privatization, Betancor and Rendeiro (of the University of Las Palmas, Spain) cover basic issues associated with the regulation of privatized airport infrastructure and services:

• *Economic characteristics of airports.* Three types of activities are carried out in airports: essential operational services (aeronautical and nonaeronautical), handling services (aeronautical and nonaeronautical), and commercial activities.

Demand for basic airport services is directly influenced by trip purpose. The two types of airline customers (business and leisure travelers) need different levels of flexibility and tend to travel at different times. Analyzing airport capacity (practical and saturation) under peak demand is essential to airport success.

Among other important issues: Runway costs, level and volume of service, pollution, congestion, and air traffic control.

• *Recent trends in the airport industry.* The movement toward privatization may involve public ownership and private operation, including joint ventures; partial or majority divestiture; management contracts; and BOT (build-operate-transfer) schemes and variants, including BOOT (build-own-operate-transfer) schemes and LDO (lease-develop-operate) schemes.

Or it may involve private ownership and operation.

• *Price regulation.* Topics covered include traditional pricing policies; price regulation through an RPI–X formula; charges for congestion, noise, and other externalities; investment plans; and design of the regulatory system.

• *Regulation of quality in the industry.* Topics covered: regulation of services to passengers (as measured by targets for check-in queues, immigration queues, baggage reclaim queues, concourse crowding, shopping, parking, and so on); fault repair times; average levels of passenger boarding and disembarkation and baggage delivery; safety; and investment obligations.

• *Performance indicators in the industry.* Topics covered: strategic indicators and other financial indicators (including revenues), as well as indicators of cost, productivity, and quality of service.

This paper — a product of Governance, Regulation, and Finance, World Bank Institute — was prepared as a background paper for the course on transport privatization organized by the institute. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room G2-148, telephone 202-473-6370, fax 202-334-8350, Internet address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. Ofelia Betancor may be contacted at ofelia@empresariales.ulpgc.es. (57 pages)

2181. Privatization and Regulation of the Seaport Industry

Lourdes Trujillo and Gustavo Nombela
(September 1999)

Containerized shipping has brought profound changes to maritime transport, including a shift from labor-intensive to more capital-intensive activities. Revising the traditional organization of seaports everywhere will prepare ports for a more competitive market and less financial dependence on governments.

With containerized shipping, maritime transport has changed profoundly. Among other things, it has shifted from labor-intensive to more capital-intensive activities, including larger specialized ships that require substantial investments in port infrastructure and equipment.

Integrated transport chains have reduced transport costs so much that a shipper may find a distant port cheaper than a closer one. Modern ports must be competitive on times and prices for their services.

Seaports must be integrated within logistical chains to serve their many functions. An efficient seaport requires infrastructure, superstructure, equipment, adequate connections to other modes of transport, a well-motivated management, and qualified employees.

The public sector has been an important port organizer in the past, but private participation in port operations and infrastructure could make ports significantly more competitive.

Trujillo and Nombela provide an overview of changes in maritime activity, discuss concession contracts (a key instrument of privatization), and analyze how regulatory mechanisms affect such factors as seaport tariffs, port congestion, port safety, the quality of cargo handling, and relevant indicators of performance, finances, and factor productivity.

They describe how an optimal seaport system should allocate tasks between the various institutions involved, including the port authority.

The degree of a seaport's decentralization, they conclude, depends on a country's size, the number of ports it has, and its legal tradition. Among several national governments in Latin America — Argentina, Brazil, Colombia, Mexico, and Venezuela — there is an evident trend toward decentralization and greater autonomy for port authorities.

This paper — a product of Governance, Regulation, and Finance, World Bank Institute — is part of a larger effort in the institute to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room G2-148, telephone 202-473-6370, fax 202-334-8350, Internet address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. Gustavo Nombela may be contacted at nombela@empresariales.ulpgc.es. (61 pages)

2182. The Integration of Transition Economies into the World Trading System

Constantine Michalopoulos
(September 1999)

Transition economies are at different stages of integration into the world trading system. Most remaining reforms and adjustments must be initiated by the countries themselves. But the United States and the European Union can help by reviewing their policies toward "nonmarket" economies.

Michalopoulos analyzes current trade policies and challenges faced by the transition economies — especially countries in the former Soviet Union — as they are integrated into the world trading system.

With few exceptions, transition economies in Central and Eastern Europe, including the Baltics, have been well integrated into the multilateral trading system. Their trade regimes differ — and the main challenges they face involve their integration into the European Union.

Integration into the multilateral trading system, including progress toward membership in the World Trade Organization (WTO), varies significantly among the other countries of the former Soviet Union. Armenia, Georgia, the Kyrgyz Republic, and Moldova have adopted relatively liberal trade regimes and are either already members of the WTO or are close to it. These four countries need to strengthen the capacity of broad market-based (especially trade-related) institutions, including customs, the financial sector, and institutions to facilitate trade.

The momentum for market and trade reform appears to have stalled in some of the larger countries of the former Soviet Union: Kazakhstan, Russia, and Ukraine. Their trade regimes are not especially restrictive, but weak operations in fundamental market institutions inhibit their effective integration into the world trading system. These problems, together with persistent protective pressures, inhibit progress and accession to the WTO.

The remaining countries in Central Asia, as well as Belarus, have far to go in introducing market-oriented reforms and institutions and the kind of trade liberalization needed for integration into international trade.

The countries of the former Soviet Union must make most of the reform and adjustment effort, but WTO members must make changes as well — especially the United States and the European Union. Both need to review their policies toward nonmarket economies on antidumping practices and (in the European Union) on safeguards. Countries where market decisions prevail should not be subjected to nontransparent and arbitrary procedures. In particular, countries that have been judged to be "market" economies in the process of gaining access to the WTO should be excluded from procedures applied for antidumping and safeguard measures in nonmarket economies.

This paper — a product of the Office of the Regional Vice President, Europe and Central Asia Regional Office — was presented at the Fifth Dubrovnik Conference on Transition Economies, Dubrovnik, Croatia, June 23–25, 1999. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada @worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at cmichalopoulos@worldbank.org. (38 pages)

2183. Market Discipline and Financial Safety Net Design

Aslı Demirgüç-Kunt and Harry Huizinga
(September 1999)

It is difficult to design and implement an effective safety net for banks, because over-

generous protection of banks may introduce a risk-enhancing moral hazard and destabilize the very system it is meant to protect. The safety net that policymakers design must provide the right mix of market and regulatory discipline — enough to protect depositors without unduly undermining market discipline on banks.

There has been little empirical work on the effectiveness of safety nets designed for banks, for lack of data on safety net design across countries. Demirgüç-Kunt and Huizinga examine cross-country data on bank-level interest expense and deposit growth for evidence of market discipline in individual countries. In addition, using cross-country information on deposit insurance systems, they investigate the impact of explicit deposit insurance (and its key features) on bank interest rates and market discipline.

They find that:

- Many countries retain some degree of market discipline, regardless of the type of safety net.
- The existence of explicit deposit insurance lowers banks' interest expenses and makes interest payments less sensitive to bank risk factors, especially bank liquidity.
- Higher explicit coverage, broader coverage, and the existence of an earmarked insurance fund increase required-deposit rates and reduce market discipline.
- Government provision of funds lowers deposit rates but also reduces market discipline.
- Private (especially joint) management of insurance schemes lowers deposit rates and improves market discipline.

This paper — a product of Finance, Development Research Group — is part of a larger effort in the group to study deposit insurance. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, Internet address klabrie @worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at ademirguckunt @worldbank.org or h.p.huizinga@kub.nl. (44 pages)

2184. Financial Services and the World Trade Organization: Liberalization Commitments of the Developing and Transition Economies

Aaditya Mattoo
(September 1999)

Financial services negotiations through the World Trade Organization have helped many developing and transition economies develop more stable and transparent policy regimes, and their commitments in no way compromise their ability to pursue sound macroeconomic and regulatory policies. But the Asian and Latin American participants, especially, held back on commitments to financial liberalization. And there was less emphasis on introducing competition by allowing new entry than on allowing (or maintaining) foreign equity participation and protecting the position of incumbents.

Mattoo analyzes the results of the financial services negotiations under the World Trade Organization's General Agreement on Trade in Services (GATS).

He shows that the negotiations have contributed to more stable and transparent policy regimes in many developing and transition economies and that the commitments in no way compromise the countries' ability to pursue sound macroeconomic and regulatory policies.

But even though the number of countries that participated in the eventual agreement was impressive, the liberalizing content of commitments was in many cases quite limited.

Numerical estimates suggest that in general the African and Eastern European participants made much more liberal commitments than the Asian and Latin American participants. On the whole, the outcome probably reflects how each participant balances the benefit of unilateral commitments against the benefit of retaining bargaining chips for future multisectoral negotiations.

Two aspects of the outcome cause concern:

- There has been less emphasis on introducing competition by allowing new entry than on allowing (or maintaining) foreign equity participation and protecting the position of incumbents.
- Where it was deemed infeasible to introduce competition immediately, participants have taken little advantage of the GATS to lend credibility to liberalization programs by precommitting to future market access.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to advance research on trade in services. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada @worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at amattoo @worldbank.org. (53 pages)

2185. Financial Sector Inefficiencies and Coordination Failures: Implications for Crisis Management

Pierre-Richard Agénor and Joshua Aizenman
(September 1999)

In a country where financial intermediation is highly inefficient (with the enforcement costs of loan contracts very high, for example), or in one experiencing great volatility and large adverse shocks in output, the likelihood of an inefficient equilibrium is great. In East Asia it may be in the interests of both debtors and creditors to collectively reduce the face value of debt, to reduce inefficiencies in the financial sector.

Agénor and Aizenman analyze the implications for crisis management of inefficient financial intermediation in a country (such as Indonesia or the Republic of Korea) where firms are highly indebted.

They base their analysis on a model in which firms rely on bank credit to finance their working capital needs and loan contracts entail high state verification and enforcement costs for lenders.

They find that higher volatility of output, lower productivity, or higher costs for contract enforcement and verification may shift the economy to the inefficient portion of the debt Laffer curve — with potentially sizable losses in employment and output.

What implications does this have for the policy debate on crisis management in East Asia? Debt reduction, in addition to debt rescheduling, may be required to reduce employment and output losses in the presence of inefficiencies in the financial sector.

In practice this may be difficult to coordinate among a large group of creditors because of the free-riding problem: Each creditor has an incentive to refrain from offering debt relief on its own claims and wait for others to do so, thereby raising the expected value of its own claims.

This paper — a product of Economic Policy and Poverty Reduction, World Bank Institute — is part of a larger effort in the institute to explore the real effects of financial sector inefficiencies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Tanya Shiel, room J4-282, telephone 202-473-6317, fax 202-676-9810, Internet address tshiel@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at pagenor@worldbank.org or j.aizenman@dartmouth.edu. (23 pages)

2186. Contagion, Bank Lending Spreads, and Output Fluctuations

Pierre-Richard Agénor, Joshua Aizenman, and Alexander Hoffmaister
(September 1999)

A positive historical shock to external spreads can lead to an increase in domestic spreads and a reduction in the cyclical component of output. Shocks to external spreads immediately after the Mexican peso crisis had a sizable effect on movements in output and domestic interest rate spreads in Argentina.

Agénor, Aizenman, and Hoffmaister study how contagion affects bank lending spreads and fluctuations in output in Argentina.

They analyze what determines bank lending spreads when verification and enforcement costs for loan contracts are high.

They present estimates of a vector autoregression model that relates bank lending spreads, the cyclical component of output, the real bank lending rate, and the spread in external interest rates.

Using generalized impulse response functions, they show that a positive historical shock to external spreads leads to an increase in domestic spreads and a reduction in the cyclical component of output.

Historical decompositions indicate that shocks to external spreads immediately after the Mexican peso crisis had a sizable effect on movements in output and domestic interest rate spreads in Argentina.

This paper — a product of Economic Policy and Poverty Reduction, World Bank Institute — is part of a larger effort in the institute to analyze the real effects of financial sector inefficiencies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Tanya Shiel, room J4-282, telephone 202-473-6317, fax 202-676-9810, Internet address tshiel@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at pagenor@worldbank.org or j.aizenman@dartmouth.edu. (31 pages)

2187. Who Determines Mexican Trade Policy?

Jean-Marie Grether, Jaime de Melo, and Marcelo Olarreaga
(September 1999)

During a period of trade liberalization (1985–89), when Mexican manufacturing experienced an important inflow of foreign direct investment, manufacturing sectors with heavy foreign direct investment received greater protection in import-competing sectors. With the move toward greater openness, the influence of industrial and foreign-investor lobbying on policy formation was reduced.

Using a political economy approach, Grether, de Melo, and Olarreaga analyze the pattern of protection in Mexico's manufacturing sector during the period of trade policy reforms (1985–89), when Mexico experienced significant trade liberalization and an important inflow of foreign direct investment.

They take into account the potential effect of foreign direct investment on endogenous tariff formation.

It turns out that the data support this analytic approach, in which the formulation of trade policy reflects political support, and in which the presence of foreign direct investment in the sector strongly affects the pattern of tariff protection before and after reform.

In Mexican manufacturing, especially, sectors with heavy foreign direct investment received greater protection in import-competing sectors, although the move toward greater openness was associated with a reduction in the influence of industrial and foreign-investor lobbying.

This paper — a product of Trade, Development Research Group— is part of a larger effort in the group to understand the political economy of trade protection. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. Marcelo Olarreaga may be contacted at molarreaga@worldbank.org. (36 pages)

2188. Financial Liberalization and the Capital Account: Thailand, 1988–97

Pedro Alba, Leonardo Hernandez, and Daniela Klingebiel
(September 1999)

Thailand's economic crisis in 1997 was fundamentally one of private sector debt, rooted in private behavior that affected the magnitude and composition of investment and how it was financed. Thailand's crisis provides further evidence that financial liberalization must be carefully managed because, by increasing competition, it lowers the franchise value of existing financial institutions and creates incentives for unsound banking practices.

Alba, Hernandez, and Klingebiel examine Thailand's macroeconomy and microeconomy for the period 1988–97 to assess the extent to which the country's mix of macroeconomic and financial sector policies contributed to its economic crisis in 1997.

They conclude that the crisis was fundamentally one of private sector debt, rooted in private behavior that affected the magnitude and composition of investment and how it was financed.

Unlike the Latin American debt crisis, the Thai crisis was not caused by excessive sovereign borrowing.

Financial sector weaknesses — including inadequate regulation and supervision, implicit deposit insurance, concentrated ownership structures, and poor accounting and disclosure — combined with liberalization of the financial sector and capital accounts, increased vulnerability by creating incentives for risk-taking by financial institutions.

Many macroeconomic fundamentals were strong, but the combination of tight monetary policy and an inflexible exchange rate created strong incentives for residents to expose themselves to excessive foreign exchange and liquidity risks.

Weak corporate governance, including close corporate links to the banking sector, encouraged risky investments and overdiversification in the corporate sector.

This paper — a joint product of the Economic Policy Division, Poverty Reduction and Economic Management Network, and the Financial Sector Strategy and Policy Department — is part of a collaborative effort with the Asian Development Bank to understand the management of private capital flows in Asia. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room MC9-624, telephone 202-473-3722, fax 202-522-2031, Internet address hvo1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at palba@worldbank.org, lhernand@condor.bcentral.cl, or dklingebiel@worldbank.org. (61 pages)

2189. Alternative Frameworks for Providing Financial Services

Stijn Claessens and Daniela Klingebiel
(September 1999)

The behavior of actors in financial systems depends crucially on the incentives that motivate them. The right regulation, supervision, and incentives — including the scope of permissible activities, degree of contestability, and extent of the safety net — for financial services can make the sector more resilient in the face of adverse shocks.

Drawing on country experience, Claessens and Klingebiel analyze alternative frameworks for providing financial services.

Scope of permissible activities. The integrated banking model (commercial banking fully integrated with other financial services, including investment banking) benefits both financial institutions and consumers. Potential costs, such as extending the safety net to nondeposit financial services, can be mitigated with safeguards and firewalls, which require regulatory enforcement and monitoring. Internationally, countries are moving toward the integrated model. The wider scope of services appears to improve financial stability and mitigate the risk of a banking crisis.

Degree of competitiveness and contestability (openness to competition). Competitiveness need not require many financial institutions; a concentrated system can be competitive if contestable. Allowing the liberal entry of foreign banks lowers the franchise value of (domestic) institutions, but the evidence suggests that on balance foreign entry provides important benefits. Systems should not be overcompetitive, however. They should allow enough franchise value that future profits give institutions an incentive to behave prudently.

Design of safety net. The design of the safety net is important in the tradeoff between ensuring the safety and soundness of financial institutions and allocating resources efficiently. A well-functioning safety net minimizes regulatory forbearance and gives banks incentives to act prudently. Owners of financial institutions behave more prudently if they have much at risk, in the form of capital, future expected profits, or their own jobs.

The wrong safety net, especially the wrong deposit insurance, entails great moral hazard. Large deposit holders are more likely to provide market discipline if they are not covered by deposit insurance (explicit or implicit), if disclosure is extensive, and if the accounting framework is adequate.

Supervision. Best international practice suggests that supervision of the financial conglomerate should probably be consolidated in one agency. Supervisors should have incentives both to monitor and to take appropriate action. Supervisory salaries should be sufficient, relative to those in the private sector, to attract and retain competent and motivated staff.

This paper — a product of the Financial Sector Strategy and Policy Group — is part of a larger effort in the group to study the importance of the financial sector framework for the stability, efficiency, and accessibility of financial services. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room MC9-624, telephone 202-473-3722, fax 202-522-2031, Internet adress hvo1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at cclaessens@worldbank.org or dklingebiel@worldbank.org. (49 pages)

2190. The Credit Channel at Work: Lessons from the Republic of Korea's Financial Crisis

Giovanni Ferri and Tae Soo Kang
(September 1999)

When negative monetary and financial shocks hit the Korean economy, reactions in the financial system amplified the impact of the shocks by reducing the credit available and increasing its cost. This particularly hurt segments of the economy that rely heavily on bank credit for external financing, such as small and medium-sized enterprises.

Ferri and Kang suggest that the credit channel — as a transmitter of monetary and financial shocks — appears to have aggravated the Republic of Korea's economic crisis.

They use microdata gathered at the bank level to better identify this channel of transmission. They find that:

- Monetary tightening broadens the spread between marginal bank lending rates and corporate commercial paper rates (consistent with the hypothesis that bank lending is a transmitter of monetary shocks).
- Credit limits on overdrafts — arguably a proxy to identify shifts in the loan supply — react negatively to the monetary squeeze.
- After the stiffening of bank capital adequacy requirements, banks suffering from larger negative capital shocks experience a more marked slowdown in lending and deposit-taking and also raise their loan rates disproportionately.

These findings lend support to the hypothesis that autonomous contraction by banks restricts the availability of credit and magnifies the increase in its cost. This phenomenon compounded the Korean crisis by aggravating liquidity constraints for most agents that rely on bank credit as their only external source of funds.

Policymakers may want to provide relief — possibly through market-based actions — to the small and medium-sized enterprises (and other businesses) that suffer unduly from such a credit crunch. To reduce obstacles to recovery, they may also want to devise market-based incentives to make bank loans available to healthy firms in sectors (such as exports) on which recovery depends.

This paper — a product of the Financial Sector Development Unit, East Asia and Pacific Region, and Finance, Development Research Group — is part of a larger effort in the Bank to study the credit crunch in East Asia. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, Internet address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at gferri@worldbank.org or tkang@worldbank.org. (25 pages)

2191. Can No Antitrust Policy Be Better Than Some Antitrust Policy?

Aaditya Mattoo
(September 1999)

Partial antitrust policy may lead to less competitive market structures than the total absence of such policy. There may sometimes even be a case for the government providing incentives for particular forms of merger.

Mattoo examines how the market structure is likely to evolve where there is multistage oligopolistic production — and what the implications of this are for antitrust policy.

Mattoo treats the decision to merge across or within stages of production as endogenous. He shows that when firms at a particular stage of production are relatively dominant, simultaneous merger decisions are conducive to competitive vertically integrated outcomes, while sequential decisions are not.

The persistence of nonintegrated market structures may be explained by the existence of equally dominant firms that make merger decisions sequentially. The credible threat of retaliatory merger may deter both socially desirable and undesirable forms of merger.

What implications do Mattoo's findings have for antitrust policymakers?

For one thing, partial antitrust policy may lead to less competitive market structures than the total absence of such policy, because policy barriers to horizontal mergers only at a particular stage of production eliminate the deterrent effect of retaliatory merger. For example, if the two stages of production are located in countries with different antitrust legislation, a policy that protects consumers from domestic mergers may ultimately hurt them by rendering foreign mergers more attractive.

When the equilibrium market structure does not contain socially undesirable mergers, there is no need for antitrust (or competition) policy.

Moreover, there may sometimes be a case for the government actually providing supplementary incentives to encourage particular forms of merger — as, for instance, when the threat of retaliatory merger deters socially desirable vertical mergers.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to examine the links between trade and regulatory policy. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, Internet address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at amattoo@worldbank.org. (39 pages)

2192. Districts, Spillovers, and Government Overspending

Reza Baqir
(September 1999)

Take an average city, keep its population and other characteristics constant, but divide it into a greater number of political districts, and you will get substantially greater government spending per capita. Install a strong-mayor form of city government — give the mayor veto power — and you may curtail the legislature's bias toward overspending.

Baqir considers the overspending bias in legislatures when the benefits of public policies are concentrated in particular districts but the costs of financing them are spread over the entire political jurisdiction. He formalizes this idea in a simple theoretic framework, in the context of externalities between districts.

His main prediction is that greater districting leads to bigger government, but the effects are mitigated if there are positive spillovers of government spending between districts.

Institutional forms of government that concentrate decisionmaking power can curtail the overspending bias. He presents evidence on these predictions from a cross-section of U.S. city governments.

His main findings are that:

- If we take an average city, keep its population and other characteristics constant, but divide it into a greater number of political districts, we get substantially greater government spending *per capita*.
- Greater jurisdictional heterogeneity and income equality are associated with bigger government.
- At-large electoral systems are not less sensitive to overspending than district electoral systems are.
- Strong-mayor forms of city government, especially those in which mayors have veto power, can curtail the overspending bias.

These findings are robust to controlling for socioeconomic characteristics of cities and to alternative measures of government size.

This paper — a product of Macroeconomics and Growth, Development Research Group — is part of a larger effort in the group to study the political determinants of government policy. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Suhasini Devadas, room MC3-342, telephone 202-458-7891, fax 202-522-3518, Internet address sdevadas@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The author may be contacted at baqir@econ.berkeley.edu. (49 pages)

2193. Children's Growth and Poverty in Rural Guatemala

Michele Gragnolati
(September 1999)

Research confirms that poor child growth outcomes in Guatemala are the result of *widespread poverty. The better the parents' education and household income, the less likely children are to suffer from malnutrition. Children also fare better where community infrastructure (such as piped water and garbage disposal) and health care facilities are better.*

Gragnolati investigates the extent and determinants of poor child health and nutrition in rural Guatemala, as reflected in attained height.

Exploiting a rich data set on relevant social, economic, ethnic, and geographic characteristics, he estimates the role played by exogenous individual, household, and community covariates in shaping differentials in children's height.

Then he addresses empirical questions ignored in previous anthropometric research, such as the distribution of child stunting across communities and the magnitude of intrafamily correlation of height-for-age outcomes, before and after controlling for observed covariates.

His estimates are guided by the economic model of the family and the proximate determinants framework. He fits multilevel models to hierarchically clustered data to control for family and community heterogeneity.

His results confirm findings from previous research suggesting that poor child growth outcomes in Guatemala are the result of widespread poverty.

He finds that height-for-age differentials between children of *ladino* mothers and children of indigenous mothers who do not speak Spanish are larger among children of more educated parents and among children living in communities with better health care facilities.

Estimates derived from multilevel models reveal much clustering of child height-for-age outcomes within families and communities. The models account for most of the community-level variation in child growth patterns but explain only half of the overall intrafamily correlation.

This paper — a product of the Human Development Sector Unit, Latin America and the Caribbean Region — is part of a larger effort in the region to study poverty and human development indicators. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michele Gragnolati, room I7-040, telephone 202-458-5287, fax 202-522-0050, Internet address mgragnolati@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. (49 pages)

2194. Does Democracy Facilitate the Economic Transition? An Empirical Study of Central and Eastern Europe and the Former Soviet Union

Jean-Jacques Dethier, Hafez Ghanem, and Edda Zoli
(October 1999)

Empirical analysis shows that democracy has facilitated economic liberalization in 25 postcommunist countries of Central and Eastern Europe and the former Soviet Union. The existence of a vibrant civil society at the start of the transition has the most explanatory power in this team's regressions.

Dethier, Ghanem, and Zoli analyze whether political freedom and civil liberties help or hinder economic liberalization, using panel data from 25 postcommunist countries of Central and Eastern Europe and the former Soviet Union between 1992 and 1997.

Building on arguments and counterarguments put forth in recent literature, they identify the channels through which political freedom affects economic liberalization during the transition. Then they test the arguments empirically with an econometric framework that takes into account possible problems with simultaneity between the economic and political transitions.

Their empirical findings clearly reveal that democracy has facilitated economic liberalization in countries of Central and Eastern Europe and the former Soviet Union.

This conclusion is confirmed under various model specifications, for both ordinary and two-stage least squares procedures and using two different measures of liberalization.

The econometric results reveal that the existence of a vibrant civil society at the start of the transition has the most explanatory power in the authors' regressions.

This paper — a product of the Poverty Reduction and Economic Management Sector Unit, Europe and Central Asia Region — was presented at a seminar at the World Bank in April 1999. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hafez Ghanem, room H4-201, telephone 202-458-5557, Internet address hghanem@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The other authors may be contacted at jdethier@worldbank.org or ezoli@worldbank.org. (30 pages)

2195. Aggregating Governance Indicators

Daniel Kaufmann, Aart Kraay, and Pablo Zoido-Lobatón
(October 1999)

With the right method, aggregate indicators can provide useful estimates of basic governance concepts as well as measures of the imprecision of these aggregate estimates and their components.

In recent years the growing interest of academics and policymakers in governance has been reflected in the proliferation of cross-country indices measuring various aspects of governance.

Kaufmann, Kraay, and Zoido-Lobatón explain how a simple variant of an unobserved components model can be used to combine the information from these different sources into aggregate governance indicators. The main advantage of this method is that it allows quantification of the precision of both individual sources of governance data and country-specific aggregate governance indicators.

Kaufmann, Kraay, and Zoido-Lobatón illustrate the methodology by constructing aggregate indicators of bureaucratic quality, rule of law, and graft for a sample of 160 countries. Although these aggregate governance indicators are more informative about the level of governance than any single indicator, the standard errors associated with estimates of governance are still large relative to the units in which governance is measured. In light of these margins of error, it is misleading to offer very precise rankings of countries according to their level of governance: small differences in country rankings are unlikely to be statistically — let alone practically — significant. Nevertheless, these aggregate governance indicators are useful because they allow countries to be sorted into broad groupings according to levels of governance, and they can be used to study the causes and consequences of governance in a much larger sample of countries than previously used (see for example the companion paper by Kaufmann, Kraay, and Zoido-Lobatón, "Governance Matters," Policy Research Working Paper 2196).

This paper — a joint product of Macroeconomics and Growth, Development Research Group; and Governance, Regulation, and Finance, World Bank Institute — is part of a larger effort in the Bank to study the causes and consequences of governance for development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Diane Bouvet, room G2-136, telephone 202-473-5818, fax 202-334-8350, Internet address dbouvet @worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at dkaufmann@worldbank.org, akraay@worldbank.org, or pzoidolobaton @worldbank.org. (39 pages)

2196. Governance Matters

Daniel Kaufmann, Aart Kraay,
and Pablo Zoido-Lobatón

Six new aggregate measures capturing various dimensions of governance provide new evidence of a strong causal relationship from better governance to better development outcomes.

In a cross-section of more than 150 countries, Kaufmann, Kraay, and Zoido-Lobatón provide new empirical evidence of a strong causal relationship from better governance to better development outcomes. They base their analysis on a new database containing more than 300 governance indicators compiled from a variety of sources. They provide a detailed description of each of these indicators and sources. Using an unobserved components methodology (described in the companion paper by Kaufmann, Kraay, and Zoido-Lobatón, "Aggregating Governance Indicators," Policy Research Working Paper 2195), they then construct six aggregate indicators corresponding to six basic governance concepts: voice and accountability, political instability and violence, government effectiveness, regulatory burden, rule of law, and graft. As measured by these indicators, governance matters for development outcomes.

This paper — a joint product of Macroeconomics and Growth, Development Research Group; and Governance, Regulation, and Finance, World Bank Institute — is part of a larger effort in the Bank to study the causes and consequences of governance for development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Diane Bouvet, room G2-136, telephone 202-473-5818, fax 202-334-8350, Internet address dbouvet @worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at dkaufmann @worldbank.org, akraay@worldbank.org, or pzoidolobaton@worldbank.org. (60 pages)